

FINAL REPORT

**535 E. Montecito Street, “Los Portales” Project  
Traffic and Parking Impact Study  
City of Santa Barbara**

Prepared for

**City of Santa Barbara  
Community Development Department**

Prepared by

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March 25, 2008

J07-1692

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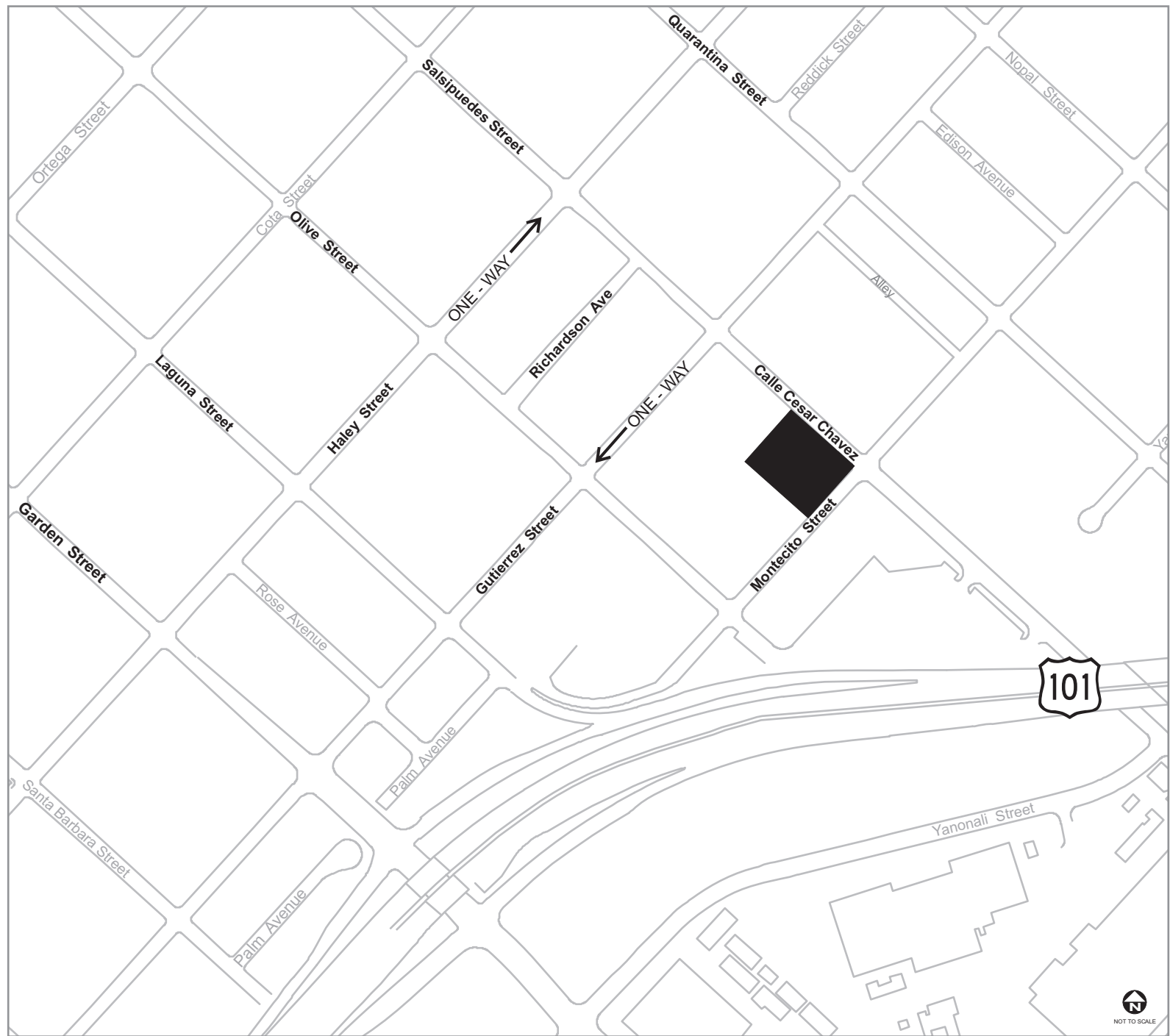
## INTRODUCTION

This report summarizes the results of a traffic impact study that was undertaken for the proposed Los Portales Condominium residential project located at 535 E. Montecito Street in the City of Santa Barbara. This report provides detailed information concerning the methodology, findings and conclusions of the traffic impact analysis and identifies mitigations measures to be implemented at any significantly impacted locations.

In addition to the impact analysis at intersections located in the surrounding roadway network, this report also identifies any potential project-related characteristics that are expected to impact parking availability in the neighborhoods surrounding the project; short-term impacts caused by construction activity occurring at the site; and impacts to any Congestion Management Program (CMP) facilities located in close proximity to the project. Finally, this report also includes a review of the accident history of one specific study intersection and a traffic signal warrant analysis for all unsignalized intersections identified as study locations.

### Project Description

The proposed project would consist of the development of 48 residential condominiums in six buildings, with each building containing four two-bedroom units and four three-bedroom units. Each residential unit would also have access to a two-car tandem garage. The project site is located in the northwest corner of the Calle Cesar Chavez and Montecito Street intersection. This location is currently vacant and bounded by office, commercial and light industrial uses. Vehicular access for project residents will be provided via a driveway on Montecito Street and two driveways on Calle Cesar Chavez. Guest parking would be provided by two surface parking spaces located in the northern portion of the site. **Figure 1** shows the location of the proposed project site in relation to the surrounding street system while, **Figure 2** illustrates the site plan.



## Legend

 Project Location





RENDERED SITE PLAN

SCALE: 1"=20'-0"

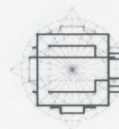
# Los Portales - 48 Residential Units

535 East Montecito Street  
Santa Barbara, California

March 1, 2007



**Peikert Group Architects, LLP**  
10 East Figueroa Street, Suite 1  
Santa Barbara, CA 93101  
Phone: 805.967.8285  
Fax: 805.967.8184



CS

## SITE DATA

Lot Coverage	100%
Building Coverage	34,972 SF 49%
Landscaping	18,370 SF 24%
Yards, Steps, Trees, etc.	7,863 SF 11%
Total Hardscaping	26,033 SF 34%
Landscaping	18,370 SF 24%
Total Lot Area	77,366 SF 100%

Average Slope of Property: 1.6%

Amount of Cut: 250 cu. yd.

Amount of Fill: 2,060 cu. yd.

Common Open Yard Areas:  
(Required: 1:610 SF (15% of Site)  
(Proposed: 11,378 SF (15.6% of Site)

## Parking Calculation

(Required) Parking: 2 Spaces x 48 Res. Units = 96

1 Guest Space per every 4 Res. Unit = 12

Total Required Parking = 108 Spaces

(Proposed) On-site Parking: 90 Residential Garage Spaces

2 Guest Parking Spaces, including 1 ADA Accessible

98 Proposed Parking Spaces

## BUILDING DATA

### Residential Units

(24) Type A Units (3 bedrooms) @ 2,336 SF av. gross (2,142 SF av. net)  
(24) Type B Units (2 bedrooms) @ 1,787 SF av. gross (1,593 SF av. net)  
(48) Total Units

Typical Building	(4) 3-BR & (4) 2-BR	Building Area (gross)	Floor Area (net)
Level 1 - Residential	3,013 SF	3,054 SF	3,054 SF
Level 2 - Residential	1,504 SF	1,445 SF	1,445 SF
Level 3 - Residential	3,174 SF	4,806 SF	4,806 SF
Level 4 - Residential	2,038 SF	2,340 SF	2,340 SF
Typical Building Total	9,529 SF	11,645 SF	11,645 SF

\*See Sheet A-01 for Specific Unit Areas per Level

Project Total	Typical Building x 4 =	38,116 SF Gross	38,116 SF
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### Notes:

1. Standpipe System will be provided under a separate permit
2. Fire Sprinkler System will be provided under a separate permit
3. See Civil Sheets for Existing Fire Hydrant Location on adjacent properties

## SHEET INDEX

- CS - Rendered Site Plan, Project Data
- A-1.0 - Site Plan & Area Diagrams
- A-2.0 - Project Elevations
- A-3.1 - Building Sections
- A-3.2 - Typical Building Floor Plans
- A-4.0 - Typical Building Elevations
- A-5.0 - Code Analysis, Project Statistics
- L-1.0 - Preliminary Landscape Plan
- L-1.1 - Tree Protection Plan
- T-0.0 - Working Tentative Map for Condominium Purpose
- T-1.0 - Preliminary Grading & Drainage Plan
- T-2.0 - Preliminary Utility Plan
- T-3.0 - Preliminary Traffic Control / Staging Plan

## PROJECT DATA

**Owner:** Housing Authority of the City of Santa Barbara  
800 Laguna Street  
Santa Barbara, CA 93101

**Applicant:** Bermant Development Company  
5083 Hollister Avenue  
Oakdale, CA 95317

**Architect:** Peikert Group Architects, LLP  
10 East Figueroa Street, Suite 1  
Santa Barbara, CA 93101

**Project Address:** 535 East Montecito Street, Santa Barbara, California

**APN:** 031-251-010

**Site Area:** Gross: 77,401 SF (1.79 Acres)

Net: 73,332 SF

**Existing Zone:** M-1

**(Proposed) Zoning:** M-1 Base Zone Specific Plan w/ Affordable Housing Overlay

**Existing Use:** Vacant

## PROJECT DESCRIPTION

A residential project consisting of (48) ownership residential units, including (24) 2-bedroom and (24) 3-bedroom units, all of which will be price-restricted.



VICINITY MAP

SCALE: N.T.S.



AERIAL VIEW

SCALE: N.T.S.



## EXISTING CONDITIONS

In conjunction with City of Santa Barbara staff, a total of six intersections were identified and are analyzed in the traffic study for weekday morning and evening peak hour conditions. Of the six intersections identified for inclusion in the analysis, five are controlled by traffic signals. Only the Gutierrez Street at Olive Street intersection is unsignalized. The six study intersections are as follows:

1. Haley Street and Garden Street;
2. Gutierrez Street and Garden Street;
3. US-101 Northbound Ramps and Garden Street;
4. US-101 Southbound Ramps and Garden Street;
5. Gutierrez Street and Olive Street; and
6. Gutierrez Street and Calle Cesar Chavez

### Existing Roadway Conditions

The project site is located in the southeastern portion of the City of Santa Barbara and is serviced by several highways, arterial and local streets. Brief descriptions of these facilities are provided below:

**El Camino Real (US-101)** is a federal highway that provides regional access to the site. In the vicinity of the project, this facility consists of six lanes west of Milpas Avenue and four lanes to the east. Primary access to the project is provided through the Garden Street interchange with secondary access available through the Milpas Street interchange.

**Calle Cesar Chavez** is a local street that consists of one travel lane in each direction with on-street parking. This facility is located along the eastern edge project and connects the Waterfront area to the Downtown and Eastern sections of the City.

**Garden Street** is an arterial street located west of the project site that consists of two travel lanes and a Class II bike lane in each direction with a landscaped median from Cabrillo Boulevard to Yanonali Street. From Yanonali Street to Gutierrez Street, this facility retains the same number of lanes, but the bike lane and landscaped median have been removed. North of Gutierrez Street, this roadway narrows to one travel lane in each direction. On-street parking is restricted in the vicinity of the project. This facility provides a direct linkage between downtown and the US-101 Freeway. Land use along the section south of US-101 is primarily industrial.

**Gutierrez Street** and **Haley Street** are two-lane streets that form a one-way couplet located just north of the project site. Vehicles travel westbound utilizing Gutierrez Street and eastbound along Haley Street. These streets provide direct access to/from Garden Street and US-101. On-street parking is allowed along both sides of each street. The land use along these facilities is a mix of neighborhood-serving retail, commercial and residential.

**Montecito Street** is a local street that consists of one travel lane in each direction. This street is located immediately adjacent to the project's southern frontage. On-street parking is allowed along both sides of the street. The land use along this roadway is primarily office and light industrial.

## Description of Existing Intersection Configurations

A field inventory was conducted of all study intersection locations. The inventory included review of intersection geometric layout, traffic control, lane configuration, transit service, land use and parking. This information is required for the subsequent traffic impact analysis. **Figure 3** illustrates the existing intersection lane configurations for the six study intersections. A brief description of each intersection is provided.

Several of the study intersections consist of roadways that contain travel lanes that offer drivers a choice of movements as their travel through the intersection. These travel lanes generally consist of "through-right" and "left-through" lanes. A "shared through-right" lane is defined as a travel lane where vehicles have the option of continuing straight ahead or making a right turn without having to change lanes. The same principle holds true for a shared "left-through lane" with the exception that the vehicle can either continue straight ahead or make a left turn.

**Haley Street and Garden Street (Intersection #1)** is a signalized intersection through which Haley Street operates as a one-way facility with traffic restricted to traveling in an easterly direction. The northbound Garden Street approach is striped as one shared through-right lane. The southbound Garden Street approach is striped as one shared left-through lane and one through lane. The eastbound Haley Street approach is striped as one shared left-through lane, one through lane and one right-turn lane.

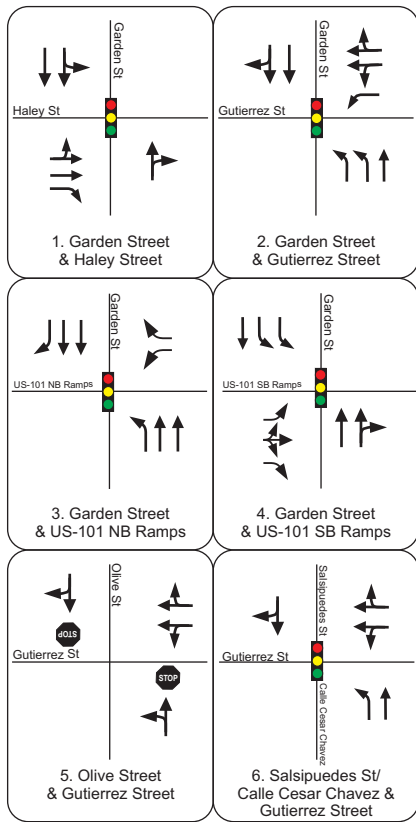
**Gutierrez Street and Garden Street (Intersection #2)** is a signalized intersection through which Gutierrez Street operates as a one-way facility with traffic restricted to traveling in a westerly direction. The northbound Garden Street approach is striped as two left-turn lanes and one through lane. The southbound Garden Street approach consists of one through lane and one shared through-right lane. The westbound Gutierrez Street approach contains one left-turn lane, one shared left-through lane and one shared through-right lane.

**US-101 Northbound Ramps and Garden Street (Intersection #3)** is a signalized intersection with protected/permissive left-turn phasing in the northbound Garden Street approach. The US-101 northbound on-ramp is located in the western leg of this intersection. The northbound Garden Street approach is striped to include one left-turn lane and two through lanes. The southbound Garden Street approach consists of two through lanes and one right-turn lane. The westbound approach, consisting of the US-101 northbound off-ramp, is striped as one left-turn and one right-turn lane.



**US-101 Southbound Ramps and Garden Street (Intersection #4)** is a signalized intersection with protected left-turn phasing in the southbound Garden Street approach. The northbound Garden Street approach contains as one through lane and one shared through-right lane. The southbound Garden Street approach consists of two left-turn lanes and one through lane. The US-101 southbound on-ramp is located in the eastern leg of this intersection and consists of one left-turn lane, one all-movement lane and one right-turn lane.

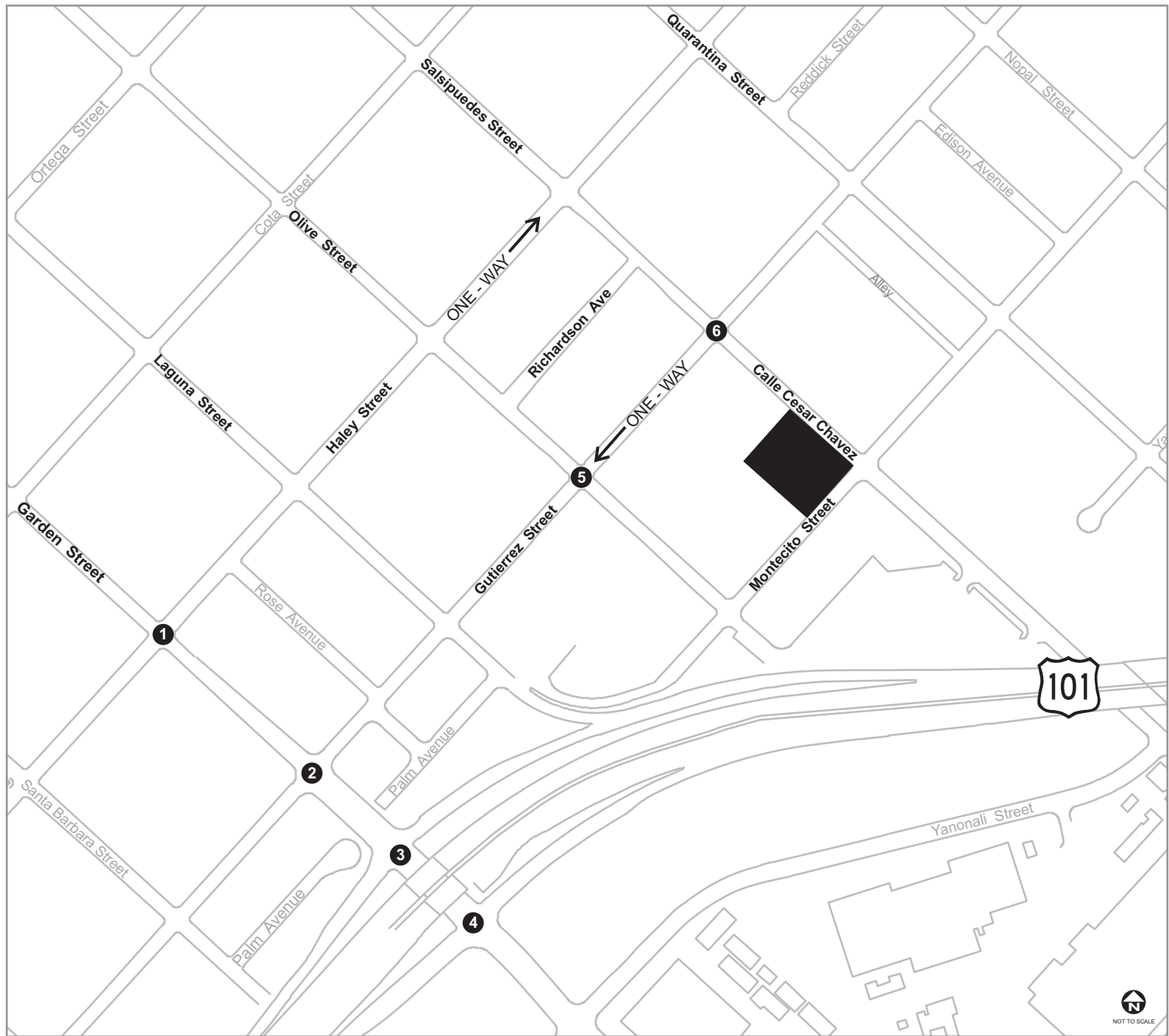
**Gutierrez Street and Olive Street (Intersection #5)** is a stop-controlled intersection with the northbound and southbound Olive Street approaches being controlled. The northbound Olive Street approach consists of one shared left-through lane. The southbound Olive Street approach consists of one shared through-right lane. The westbound Gutierrez Street approach contains one shared left-through lane and one shared through-right lane.





## Legend

-  Project Location
-  Study Intersection
- xx(xx) AM/PM Peak Hour Volumes



**Gutierrez Street and Calle Cesar Chavez/Salsipuedes Street (Intersection #6)** is a signalized intersection with permissive left-turn phasing in all approaches. The northbound Calle Cesar Chavez approach is striped as one left-turn lane and one through lane. The southbound Calle Cesar Chavez approach is striped to include one shared through-right lane. The westbound Gutierrez Street approach consists of one shared left-through lane and one shared through-right lane.

### Existing Transit Operations

The Municipal Transit District (MTD) of the City of Santa Barbara operates three bus lines that travel within the study area of the project site. A description of these transit routes are as follows:

*Carpinteria (Line 20)* – This route operates between the City of Santa Barbara Transit Center and the town of Carpinteria. Within the study area it travels east along Haley Street and west along Gutierrez Street. Service is provided on weekdays, weekends, and minor holidays.

*Carpinteria Express (Line 21x)* – This limited-stop route operates between the City of Santa Barbara Transit Center and the town of Carpinteria. Within the study area it travels south along Garden Street and west along Gutierrez Street. Service is provided on weekdays, weekends, and minor holidays.

*Valley Express 84* – This limited-stop route operates between the town of Solvang and the City of Santa Barbara Transit Center. Within the study area it travels north along Garden Street, east along Haley Street and west along Gutierrez Street. Service is provided on weekdays only.

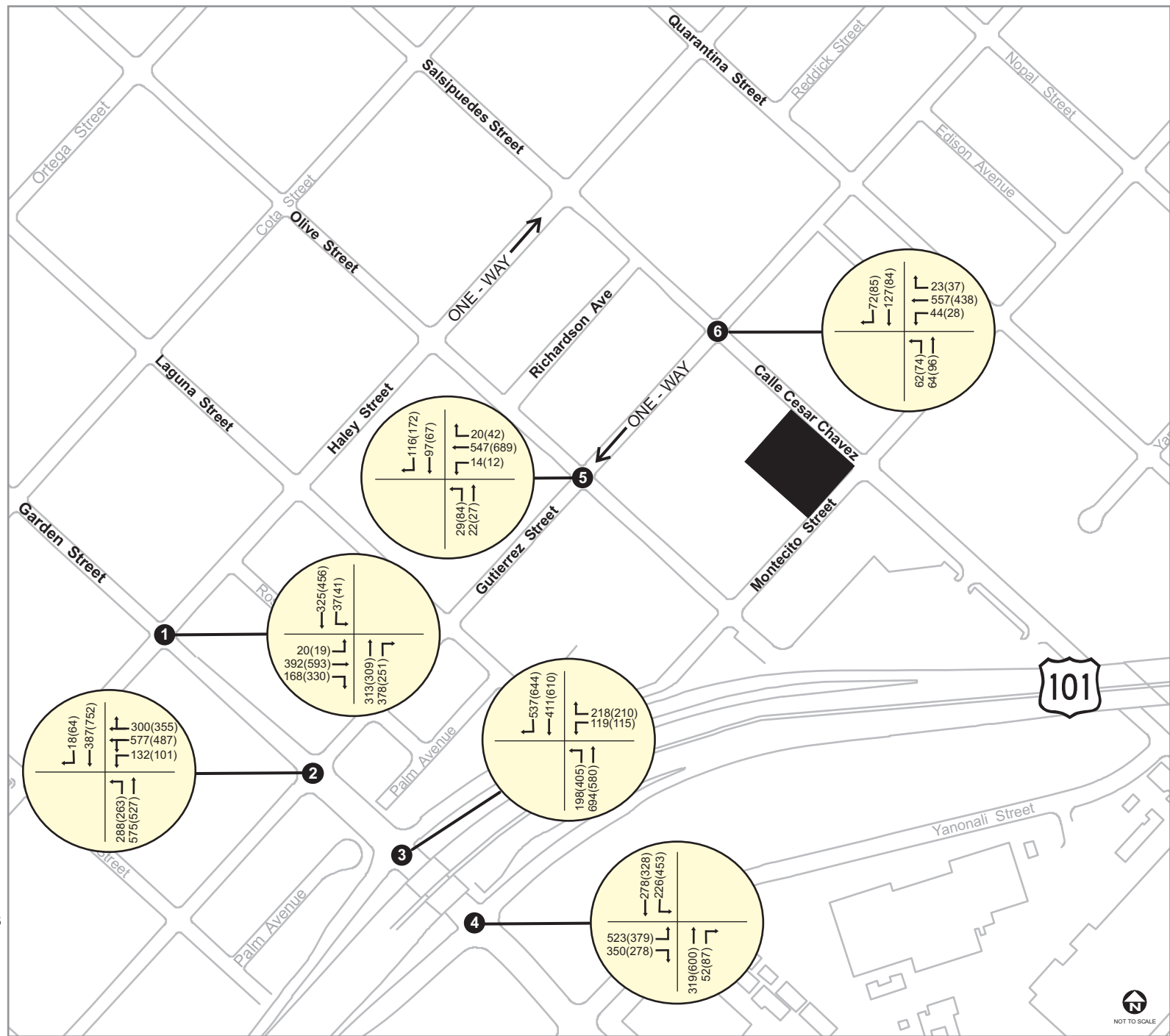
### Existing Traffic Volumes

Weekday morning and evening peak period turning movement traffic counts were conducted in October and November of 2006 for five of the six analyzed intersections. The traffic counts were conducted from 7:00-9:00 AM and 4:00-6:00 PM and the traffic impact analysis was based on the highest single hour of traffic (during each of the peak periods) at each study intersection.

A supplemental count was conducted in February of 2007 at the Gutierrez Street at Garden Street intersection to verify the distribution of traffic utilizing the dual westbound left-turn lanes. This supplemental count verified that the distribution was uneven and that only 25 percent of traffic utilized the interior lane and the remaining 75 percent utilized the exterior lane. This condition is due to the close proximity, approximately 225 feet, of the US-101 northbound on-ramp to the Gutierrez Street at Garden Street intersection.

Traffic counts at the sixth intersection, Gutierrez Street at Olive Street, were conducted in January of 2008. **Figure 4** shows the existing peak hour traffic volumes at the analyzed intersections. The traffic count sheets are provided in **Appendix A**.





**TABLE 1: LEVEL OF SERVICE  
SIGNALIZED AND UNSIGNALIZED INTERSECTIONS**

Level of Service	Description	V/C Ratio	Stop-Controlled Intersection Delay (sec per veh)
A	Uncongested operations; all queues clear in a single signal cycle.	$\leq 0.600$	$\leq 10$
B	Very light congestion; an occasional approach phase is fully utilized.	$>0.600$ to $0.699$	$>10$ and $\leq 15$
C	Light congestion; occasional backups on critical approaches.	$>0.700$ to $0.799$	$>15$ and $\leq 25$
D	Significant congestion on critical approaches, but intersection functional. Cars required to wait through more than one cycle during short peaks. No long-standing queues formed.	$>0.800$ to $0.899$	$>25$ and $\leq 35$
E	Severe congestion with some long-standing queues on critical approaches. Traffic queue may block nearby intersections upstream of critical approaches.	$>0.900$ to $0.999$	$>35$ and $\leq 50$
F	Total breakdown, stop-and-go operation.	$> 1.000$	$> 50$
Source: Transportation Research Board, <i>Transportation Research Circular 212, Interim Materials on Highway Capacity</i> , 1980. <i>Highway Capacity Manual</i> , Special Report 209, Transportation Research Board, Washington, D.C., 2000.			

## Existing Traffic Operations Analysis

The City of Santa Barbara considers level of service C to be the minimum acceptable operating standard for signalized intersections, and an average vehicle delay of 22 seconds as the minimum standard for unsignalized intersections.

The morning and evening peak hour level of service analyses were conducted for the six study intersections based on the measured traffic volumes and the methodologies described previously. All intersection analyses are performed using the TRAFFIX (Traffic Impact Analysis) software program. The existing conditions level of service analysis results are summarized in **Table 2**.

**TABLE 2: LOS ANALYSIS - EXISTING CONDITIONS**

Intersection		AM Peak Hour		PM Peak Hour	
		LOS	V/C (Delay)	LOS	V/C (Delay)
1	Haley St at Garden St	B	0.672	B	0.654
2	Gutierrez St at Garden St	D	0.820	C	0.792
3	US-101 NB Ramps at Garden St	A	0.555	C	0.731
4	US-101 SB Ramps at Garden St	A	0.449	A	0.569
5	Gutierrez St at Olive St	C	15.5	C	20.0
6	Gutierrez St at Calle Cesar Chavez	A	0.444	A	0.389
<b>Notes:</b> LOS = Level of Service, Delay = Average Vehicle Delay (Seconds), V/C = Volume-to-Capacity Ratio for Signalized Intersections					

The results shown in **Table 2** indicate that the Gutierrez Street at Garden Street intersection is currently operating at LOS D and C in the morning and evening peak hours, respectively. In both periods, the intersection experiences a V/C ratio above 0.770. This intersection is considered to be operating at an unacceptable level of service under City of Santa Barbara standards. The remaining five analyzed intersections are currently operating at LOS C or better during both peak hours. The detailed level of service worksheets for the analyzed intersections are included in **Appendix B**.

## EXISTING WITH PROJECT CONDITIONS

### Project Trip Generation

The first step in analyzing the future traffic conditions with the project is to estimate the number of new trips expected to be generated by the proposed project. This section of the report describes the estimation of future traffic generation of the proposed project.

As described previously, the proposed project would consist of a total of 48 residential condominium units. Utilizing trip generation rate data contained in the Institute of Transportation Engineers (ITE) *Trip Generation*, 7<sup>th</sup> Edition, the estimated trips for the proposed project were calculated. The resulting trip generation estimates are summarized in **Table 3**.

**TABLE 3: PROJECT TRIP GENERATION ESTIMATES**

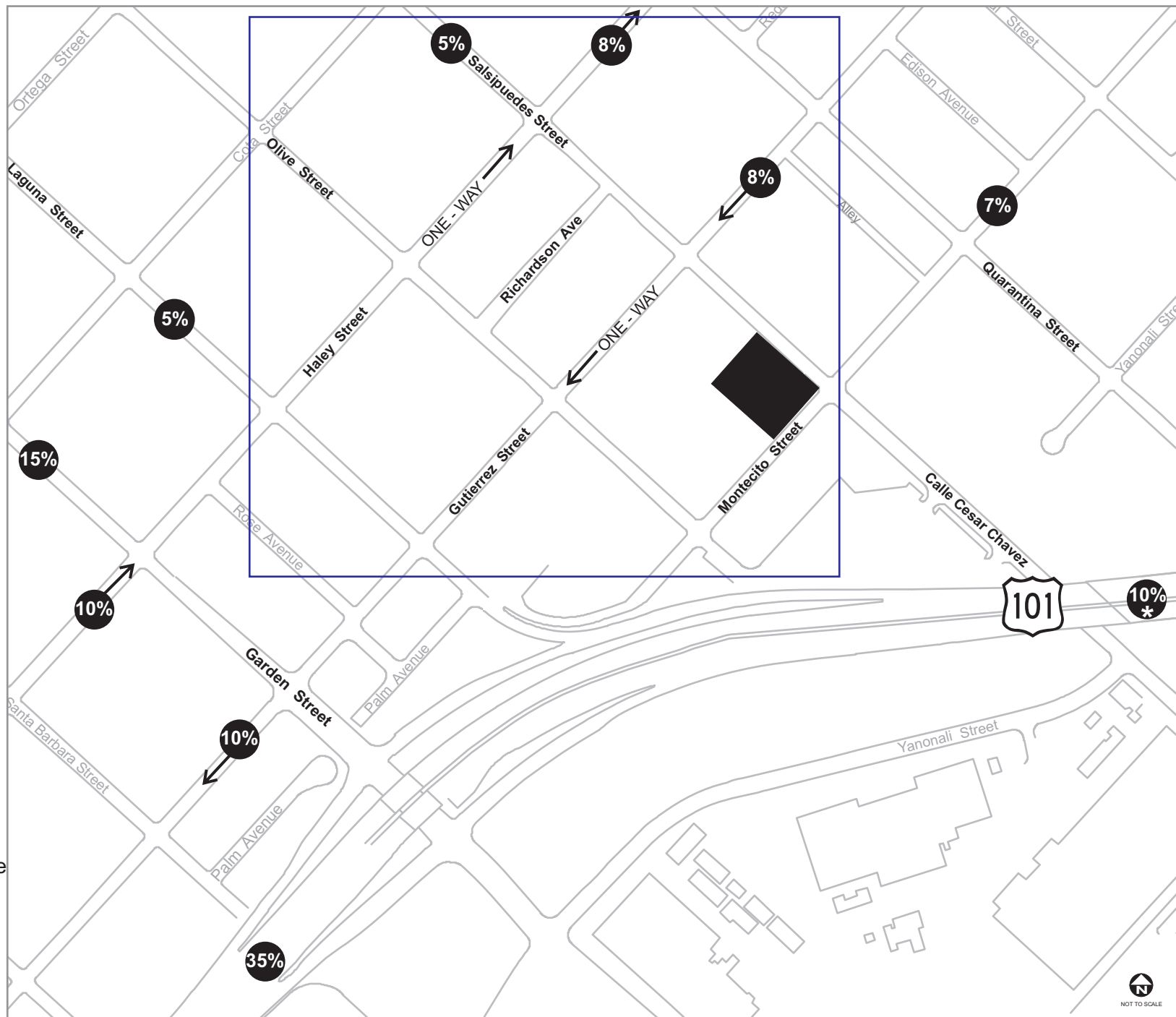
535 E. Montecito Street	Land Use Code	ITE Trip Rates							Size (du)	Trips Ends Generated						
		Weekday AM			Weekday PM			Daily		Weekday AM			Weekday PM			Daily
		In	Out	Total	In	Out	Total			In	Out	Total	In	Out	Total	
Condominiums	230	0.07	0..37	0.44	0.35	0.17	0.52	5.86	48	3	18	21	17	8	25	281
Total										3	18	21	17	8	25	281
Note: DU – dwelling unit Source: Institute of Transportation Engineers, <i>Trip Generation</i> , 7 <sup>th</sup> Edition.																

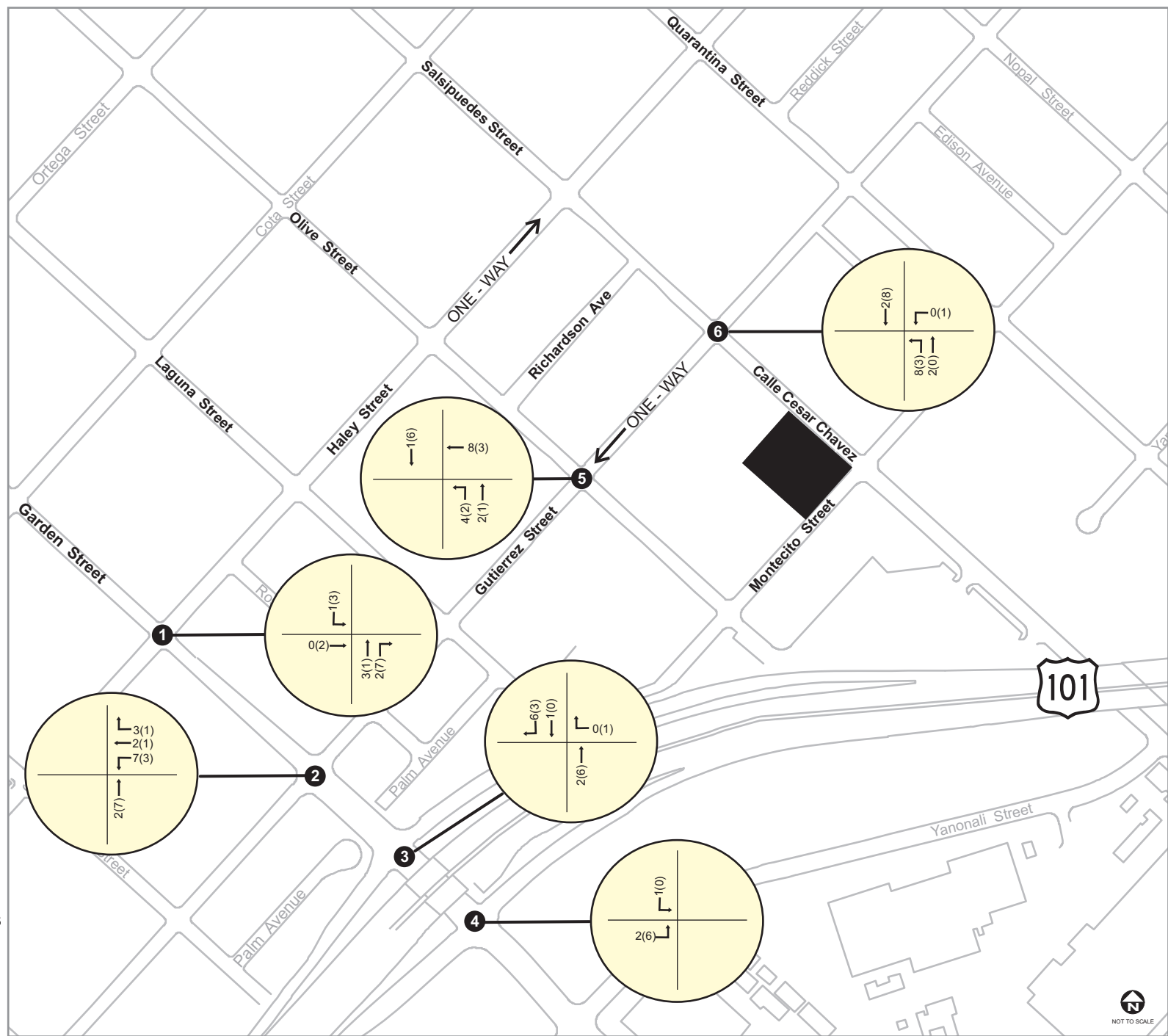
The proposed project is expected to generate 281 daily trips. A total of 21 trips are expected to occur during the morning peak hour and 25 trips during the evening peak hour.

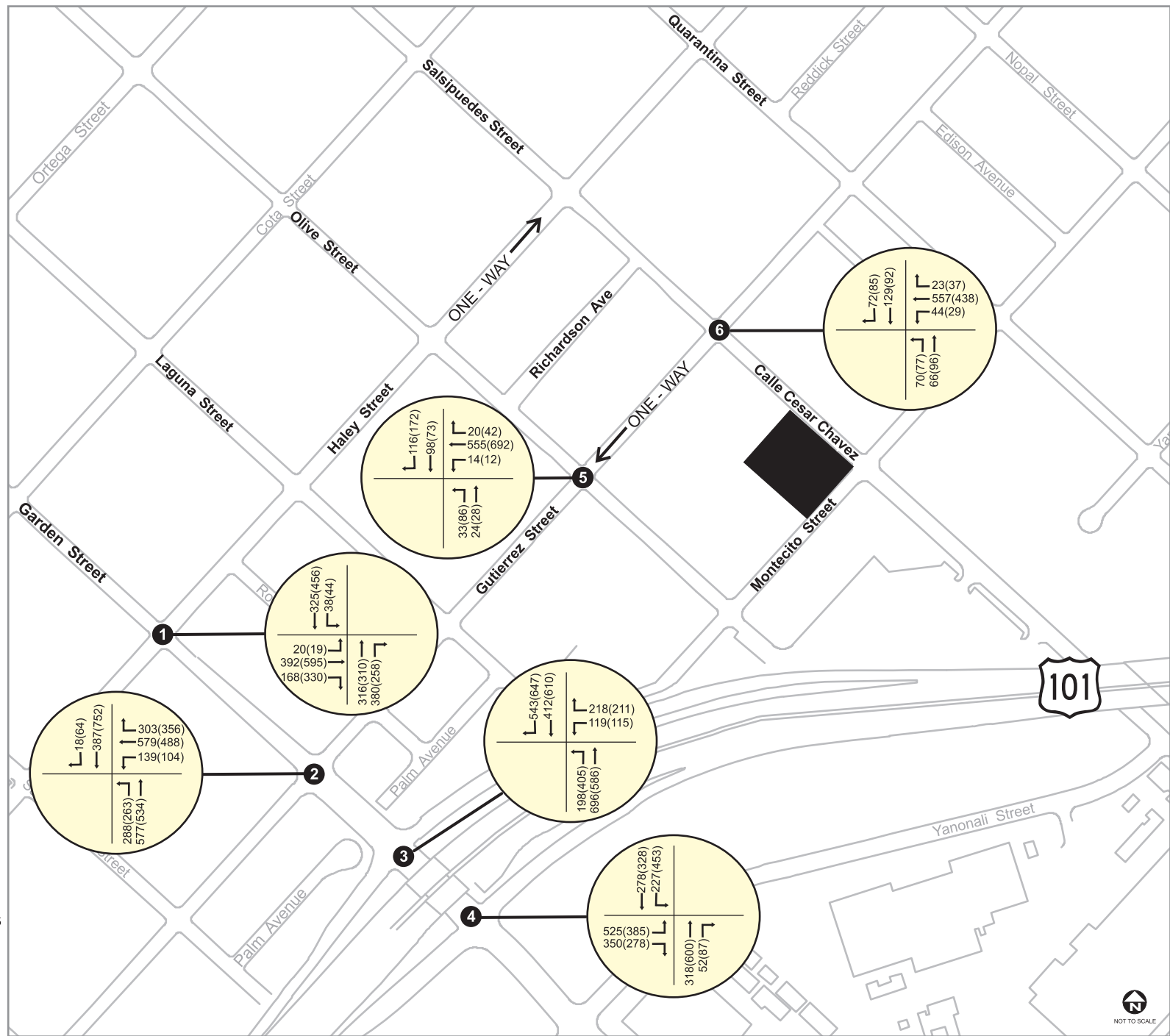
### Project Trip Distribution and Assignment

The next step in the forecast of project traffic is the anticipated distribution of the trip estimates. The trip distribution assumptions are used to determine the origin and destination of the new vehicle trips associated with the project. The geographic distribution of the project trips is based on the locations of neighborhoods and residential areas, employment and service centers, the street system that serves the site, and recent traffic data collected in the project study area.

The trip distribution developed for the proposed project is shown on **Figure 5**. Utilizing the project trip generation and the trip distributions, the project-only traffic volumes were assigned to the street network. **Figure 6** illustrates the resulting project-only peak hour traffic volumes for the morning and evening time periods at the analyzed intersections. The resulting existing with project traffic volumes are shown on **Figure 7**.







## Threshold of Significance

Significant traffic impacts are determined based on a threshold of significance set by the lead agency conducting the environmental review. The City of Santa Barbara has established the following threshold criteria to determine if a project has a significant traffic impact:

- A project-specific significant impact is deemed to have occurred if a development project would cause the volume-to-capacity (V/C) ratio at an intersection to exceed 0.77, or if the project would increase the V/C ratio at intersections which already exceed 0.77 by 0.01.
- A cumulative project significant impact is deemed to have occurred if a development project would add vehicle trips to an intersection which is forecast to operate above  $V/C = 0.77$  with cumulative traffic volumes.

A threshold of five vehicles was determined through a statistical analysis conducted by City of Santa Barbara staff. This analysis showed that there is a statistical probability that at least one vehicle trip will travel through an impacted intersection at least once a day when five or more trips are generated by a project. If four or less trips are generated, the level of certainty that a project trip will travel through an impacted intersection is reduced to the level of uncertainty. This leads to the conclusion that when a project generates less than five vehicle trips, it is not considered to have added any traffic to the impacted intersection.

## Existing With Project Traffic Operations Analysis

The results of the existing with project conditions level of service analysis, based on the traffic volumes provided in **Figure 7**, are summarized in **Table 4** for the morning and evening peak hours.

**TABLE 4: LOS ANALYSIS - EXISTING WITH PROJECT CONDITIONS**

Intersection		Existing Conditions				Existing With Project Conditions					
		AM Peak Hour		PM Peak Hour		AM Peak Hour			PM Peak Hour		
		LOS	V/C (Delay)	LOS	V/C (Delay)	LOS	V/C (Delay)	$\Delta V/C$	LOS	V/C (Delay)	$\Delta V/C$
1	Haley St at Garden St	B	0.672	B	0.654	B	0.676	0.004	B	0.667	0.013
2	Gutierrez St at Garden St	D	0.820	C	0.792	D	0.826	0.006	C	0.794	0.002
3	US-101 NB Ramps at Garden St	A	0.555	C	0.731	A	0.558	0.003	C	0.732	0.001
4	US-101 SB Ramps at Garden St	A	0.449	A	0.569	A	0.450	0.001	A	0.571	0.002
5	Gutierrez St at Olive St	C	15.5	C	20.0	C	15.7	0.2	C	20.1	0.1
6	Gutierrez St at Calle Cesar Chavez	A	0.444	A	0.389	A	0.450	0.006	A	0.396	0.007
<b>Notes:</b> LOS = Level of Service, Delay = Average Vehicle Delay (Seconds), V/C = Volume-to-Capacity Ratio for Signalized Intersections											

The results shown in **Table 4** indicate that with the addition of project-generated traffic, the Gutierrez Street at Garden Street intersection is again expected to operate at LOS D, with a V/C ratio of 0.826 in the morning peak hour and LOS C with a V/C ratio of 0.794 in the evening peak hour.

As stated earlier in this report, this intersection is considered to be operating at an unacceptable level of service under City of Santa Barbara standards. Although the overall V/C ratio at the Gutierrez Street at Garden Street intersection increased as a result of adding project-generated traffic, the incremental increase is below the level needed to be considered a project-specific

significant impact. The increase in V/C ratio created by project-related traffic was 0.006 in the morning peak hour and 0.002 in the evening peak hour. Both of these values are well below the 0.010 incremental increase allowed under City of Santa Barbara traffic impact guidelines.

The remaining five analyzed intersections are expected to continue operating at LOS C or better during both peak hours. Therefore, the proposed project **does not** have any project-specific significant traffic impacts as defined under the City of Santa Barbara threshold of significance. The detailed level of service worksheets for the analyzed intersections are included in **Appendix B**.

The project description and traffic data utilized in this report is the same data that was used in the Associated Transportation Engineers report conducted in April 2007. In that report, the proposed project was found to have a project-specific significant traffic impact during the morning peak hour at the Gutierrez Street at Garden Street intersection. This determination was made based on the fact that the V/C ratios that were calculated using the same exact data were rounded to two digits after the decimal. This resulted in the V/C ratio calculated under the Existing with Project scenario to be read as 0.83. When this value was compared to the V/C ratio calculated for the Existing Conditions scenario of 0.82, after rounding to two digits, a difference of 0.01 was calculated and the intersection was identified as having a project-specific significant traffic impact.

The V/C ratios calculated as part of the current traffic impact analysis were rounded to the industry-standard of three digits after the decimal. This calculation resulted in the values discussed above of 0.820 for the Existing Conditions scenario and 0.826 for the Existing with Project scenario. When these two values are compared, traffic generated by the proposed project is only responsible for an incremental increase in the V/C ratio of 0.006, which is well below the threshold of 0.010 provided in the City's traffic impact guidelines. Under this methodology, the project would not have a project-specific significant traffic impact at the Gutierrez Street at Garden Street intersection.

The same situation occurred in the evening peak hour with the only difference being the values calculated for the V/C ratios. For the evening peak hour, the Existing with Project scenario was found to have a V/C ratio of 0.80 and the Existing Conditions scenario a value of 0.79, when rounded at two digits. If these values were expanded to three digits, the results would be 0.796 and 0.794, respectively. Instead of an apparent incremental increase of 0.010, the actual increase was 0.002. As similar to the morning peak hour situation, this value is substantially lower than the City's significance threshold and would therefore not result in a project-specific significant traffic impact.



## FUTURE BASE CONDITONS

To evaluate the potential impact of the proposed project on future traffic conditions, it is first necessary to develop a forecast of future traffic volumes in the study area under conditions without the proposed project. This provides a basis against which to measure the potential significant impacts of the proposed project.

The anticipated buildout year of the proposed project is expected to be 2010. The projection of Year 2010 No-Project (future without project) traffic consists of existing traffic plus ambient traffic growth (general background regional growth) plus growth in traffic generated by specific cumulative projects expected to be completed by the year 2010. The following describes the two growth components.

### Ambient Traffic Growth

Ambient traffic growth is the traffic growth that will occur in the study area due to general employment growth, housing growth and growth in regional through trips in southern California. Even if there was no change in housing or employment in the City of Santa Barbara, there will be some background (ambient) traffic growth in the region. Per the City staff, a 0.05 percent per year growth rate was assumed as a conservative estimate of traffic increase in the study area. Existing 2007 traffic volumes were increased by a factor of 1.015 to account for ambient traffic growth to the year 2010 (three years at one-half percent per year).

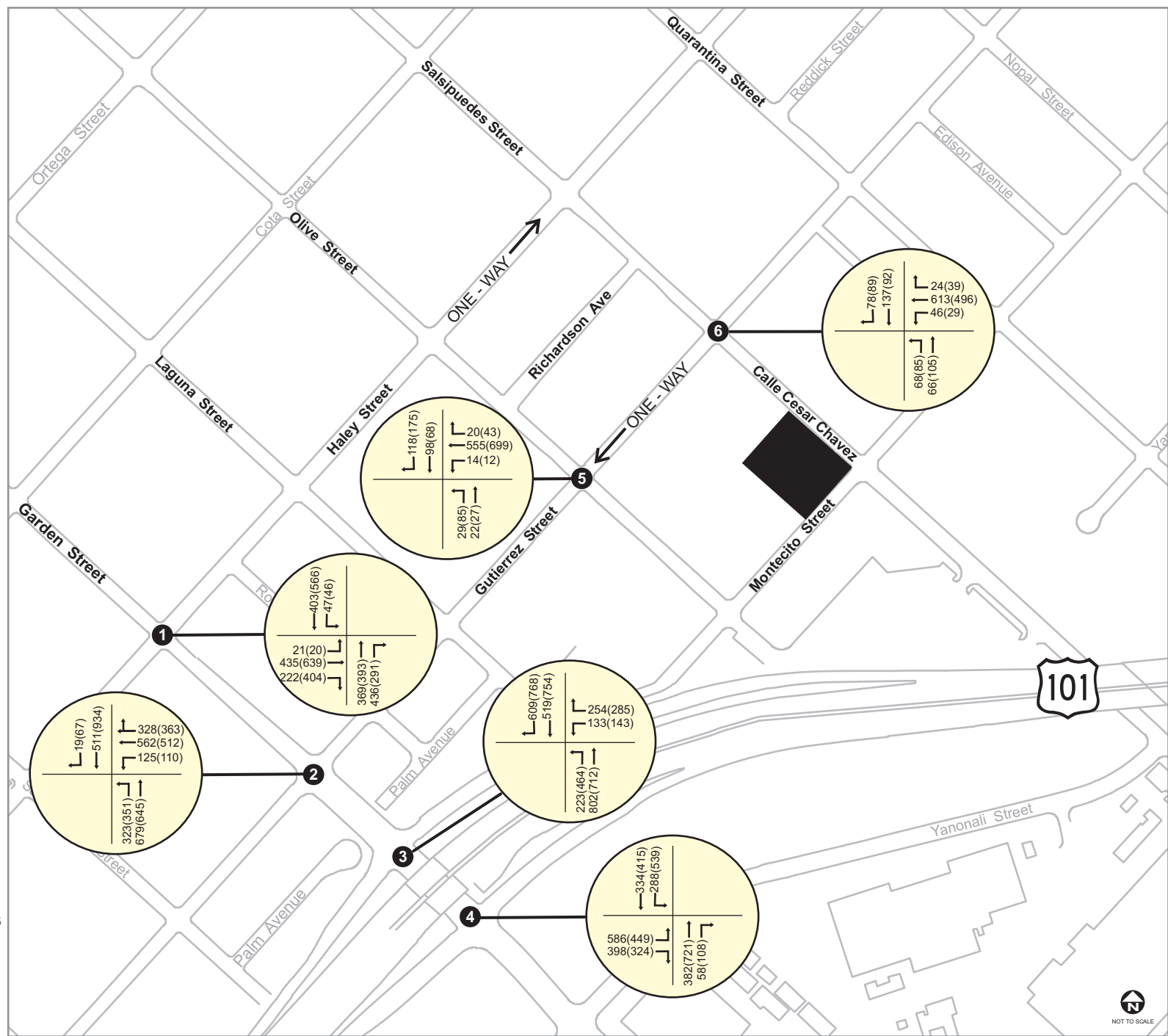
### Cumulative Project Growth

Cumulative project traffic growth is growth due to specific, known development projects in the area surrounding the study locations that may affect traffic circulation. This growth is also included in the analysis of the future without project conditions. A list of development pending and/or approved projects expected to occur within the surrounding area was generated in coordination with City of Santa Barbara staff. A total of 74 projects were identified as potentially affecting traffic circulation through the study area. The individual lists provided by City staff are in **Appendix C**.

Traffic generated due to these projects has been estimated based on information provided by city staff and supplemented with standard trip generation data from the Institute of Transportation Engineers' (ITE) *Trip Generation, 7<sup>th</sup> Edition*. The cumulative projects are forecast to generate approximately 521 morning and 1,212 evening peak hour trips. The trips expected from the cumulative projects were then assigned to the traffic model as part of the development of the future base traffic projections.

### Future Base Traffic Analysis

As mentioned above, the proposed project is anticipated to be completed by 2010; therefore future conditions without the project were assessed for this year. The future without project traffic volumes were developed, as shown in **Figure 8**, and operating conditions were analyzed at the six study intersections for the morning and evening peak hours.



Based on the future base traffic forecast, the levels of service at the analyzed intersections were calculated for the morning and evening peak hours. **Table 5** summarizes the peak hour level of service results.

**TABLE 5: LOS ANALYSIS – FUTURE BASE CONDITIONS**

Intersection		AM Peak Hour		PM Peak Hour	
		LOS	V/C (Delay)	LOS	V/C (Delay)
1	Haley St at Garden St	C	0.761	C	0.748
2	Gutierrez St at Garden St	D	0.876	D	0.839
3	US-101 NB Ramps at Garden St	B	0.618	D	0.844
4	US-101 SB Ramps at Garden St	A	0.510	B	0.661
5	Gutierrez St at Olive St	C	15.7	C	20.5
6	Gutierrez St at Calle Cesar Chavez	A	0.480	A	0.422
<b>Notes:</b> LOS = Level of Service, Delay = Average Vehicle Delay (Seconds), V/C = Volume-to-Capacity Ratio for Signalized Intersections					

As shown in **Table 5**, the Gutierrez Street at Garden Street intersection is expected to operate at LOS D in both the morning and evening peak hours. The intersection of US-101 Northbound Ramps and Garden Street is also expected to operate at LOS D in the evening peak hour. Under these conditions, both of these intersections are considered to operate at unacceptable levels of service according to City of Santa Barbara standards. The remaining four analyzed intersections are expected to continue operating at LOS C or better during both peak hours. The detailed level of service worksheets for conditions without the project are included in **Appendix B**.

## CUMULATIVE PROJECT CONDITIONS

### Cumulative Project Traffic Analysis

Under the cumulative project scenario, the project-only peak hour traffic volumes, shown on **Figure 6**, are added to the future base traffic volumes. The resulting year 2010 cumulative project morning and evening peak hour traffic volumes are shown on **Figure 9**.

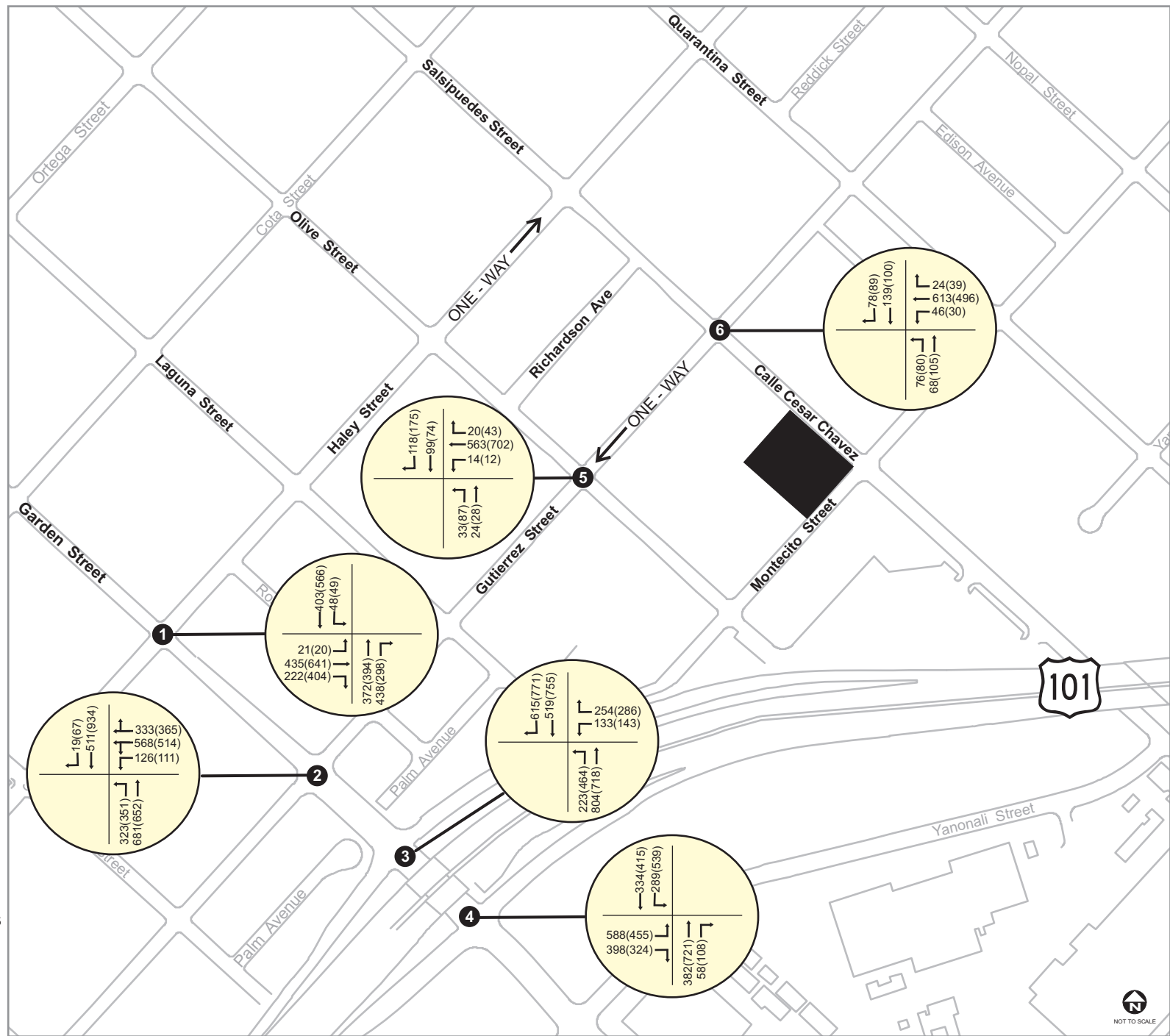
The intersection volume-to-capacity ratios and corresponding levels of service for the cumulative project condition were calculated and the results summarized in **Table 6** for each of the six analyzed locations. The resultant change in V/C ratio comparing the "Cumulative Project" to the "Future Base" is also presented in the table.

**TABLE 6: LOS ANALYSIS - CUMULATIVE PLUS PROJECT CONDITIONS**

Intersection		Future Base Conditions				Cumulative Project Conditions					
		AM Peak Hour		PM Peak Hour		AM Peak Hour			PM Peak Hour		
		LOS	V/C (Delay)	LOS	V/C (Delay)	LOS	V/C (Delay)	Added Trips	LOS	V/C (Delay)	Added Trips
1	Haley St at Garden St	C	0.761	C	0.748	C	0.765	6	C	0.755	13
2	Gutierrez St at Garden St	D	0.876	D	0.839	D	<b>0.881</b>	<b>14</b>	D	<b>0.840</b>	<b>12</b>
3	US-101 NB Ramps at Garden St	B	0.618	D	0.844	B	0.620	9	D	<b>0.846</b>	<b>10</b>
4	US-101 SB Ramps at Garden St	A	0.510	B	0.661	A	0.510	3	B	0.663	6
5	Gutierrez St at Olive St	C	15.7	C	20.5	C	15.9	15	C	21.2	12
6	Gutierrez St at Calle Cesar Chavez	A	0.480	A	0.422	A	0.481	12	A	0.429	12
<b>Notes:</b> LOS = Level of Service, Delay = Average Vehicle Delay (Seconds), V/C = Volume-to-Capacity Ratio for Signalized Intersections											

When the cumulative project forecasts were analyzed at the study intersections, the results indicate that the proposed project is expected to create a significant cumulative project traffic impact at two of the six locations under City of Santa Barbara significant impact criteria. Under future base traffic conditions, the intersections of Gutierrez Street at Garden Street and US-101 Northbound Ramps at Garden Street are expected to operate at LOS D, which exceeds the City's threshold of LOS C and a V/C ratio of 0.77 or greater. Therefore, a cumulative project significant impact is created when five or more additional vehicles generated by the proposed project travel through either of these intersections.

The remaining four analyzed intersections are expected to continue operating at LOS C or better during both peak hours. The detailed level of service worksheets for the analyzed intersections are included in **Appendix B**.



## CUMULATIVE PROJECT MITIGATION MEASURES

The proposed project was determined to have significant cumulative traffic impacts at two study intersections: Gutierrez Street at Garden Street and US-101 Northbound Ramps at Garden Street. Each intersection was analyzed in an effort to identify traffic mitigations that could be used to reduce the overall impacts associated with cumulative traffic conditions to a less than significant level.

Two potential mitigation measures were identified for the Gutierrez Street at Garden Street intersection but were deemed infeasible due to physical and procedural restrictions. The first potential mitigation considered involved widening the westbound approach of the intersection to accommodate an additional westbound lane and restriping the approach to consist of two exclusive left-turn lanes, one through lane and one shared through-right lane. While this improvement would mitigate the cumulative traffic impacts occurring at this intersection, it would require the project to reimburse the City for any expenses associated with acquiring additional right of way along the southern edge of Gutierrez Street.

The second potential mitigation measure identified at the Gutierrez Street at Garden Street intersection would optimize the traffic cycle length and signal phasing to operate more efficiently. While this improvement does not encounter any significant physical impediments, it does have a procedural obstacle it cannot overcome. The City's current traffic impact analysis guidelines state that the Intersection Capacity Utilization methodology is to be used to determine the level of service and volume to capacity ratios for intersections under City jurisdiction. Unfortunately, this methodology does not utilize traffic cycle lengths and signal timings to analyze traffic operations at intersections. While improvements may be made to the actual operation of the traffic signal at this intersection, those improvements would not be reflected as part of the traffic impact analysis and the significant impact at this intersection would remain as an unmitigated impact. Due to these restrictions, no feasible mitigation measures could be identified that would reduce the significant cumulative traffic impact occurring at the Gutierrez Street at Garden Street intersection to a less than significant level.

Due to the extremely limited right of way at the US-101 Northbound Ramps at Garden Street intersection, no feasible, physical mitigations could be identified. Any changes to the traffic signal cycle length or signal timing would have similar results as those discussed for the Gutierrez Street at Garden Street intersection. Based on these restrictions, this intersection is also expected to experience a significant cumulative traffic impact for which no feasible mitigation measures can be identified.

## PARKING ANALYSIS

The proposed project will include a total of 98 parking spaces, 96 of which are located in ground-level two-car tandem parking garages that can be accessed directly from individual residential units. The remaining two parking spaces will be provided for use by visitors. Any additional parking needed by visitors to the project will need to be accommodated by using available on-street parking.

An analysis of the parking at the proposed project was conducted to determine if this supply of visitor parking would be adequate to meet the project's needs. The analysis of the project's parking demand consists of two steps: 1) determination of the peak parking demands for the project, and 2) identification of the peak on-street parking demand of the surrounding uses.

## PARKING REQUIREMENTS

The proposed project consists of a mix of 48 residential dwelling units. The total number of parking spaces required for the proposed project was based on parking code rates as provided in the City of Santa Barbara Municipal Code. The total number of required parking spaces is provided in **Table 7**.

**TABLE 7: CITY CODE BASED PARKING REQUIREMENTS**

Land Use	Units (DU)	Parking Code Requirements	Parking Requirements
Residential Condominiums			
2 – Bdrm	24	2.0 spaces per dwelling unit	48
3 – Bdrm	24	2.0 spaces per dwelling unit	48
Guest	48	1.0 spaces per 4 dwelling units	12
<b>Total Parking Demand</b>			<b>108</b>
Source: City of Santa Barbara Municipal Code.			

As stated above, the proposed project will include a total of 96 parking spaces in ground-level, tandem parking garages and two additional visitor parking spaces. When this total is compared to the 108 parking spaces required under City code, it was determined that the project is short a total of 10 parking spaces. This shortfall would have to be accommodated by available parking spaces located on the surrounding streets.

## EXISTING ON-STREET PARKING CONDITIONS

On-street parking surveys were conducted along the streets within a two-block radius surrounding the project site to determine if adequate on-street parking is available for use by visitors to the proposed project. The parking surveys were conducted on two separate days, Wednesday, December 18<sup>th</sup> and Thursday, December 19<sup>th</sup> and consisted of the following locations:

- Haley Street, between Olive Street and Quarantina Street;
- Gutierrez Street, between Olive Street and Quarantina Street;
- Richardson Avenue, between Olive Street and Calle Cesar Chavez;
- Montecito Street, between Olive Street and Quarantina Street;
- Olive Street, between Haley Street and Montecito Street;
- Calle Cesar Chavez, between Haley Street and the US-101 overpass; and
- Quarantina Street, between Haley Street and Montecito Street.

The 14-block study area was determined to contain an estimated 475 on-street parking spaces. The average weekday on-street parking utilization for this area is shown in **Table 8**.

**TABLE 8: AVERAGE WEEKDAY ON-STREET PARKING UTILIZATION**

Zone	1	2	3	4	5	6	7	Total Spaces	Utilization Level
<b>Total</b>	70	126	67	47	46	57	62	475	(%)
8:00 AM	42	75	50	16	24	44	44	295	62
9:00 AM	52	95	54	23	34	48	44	350	74
10:00 AM	58	101	61	27	41	53	52	392	83
11:00 AM	63	107	64	29	40	54	58	414	87
12:00 PM	66	106	59	32	39	51	54	406	85
1:00 PM	57	100	57	27	36	49	48	373	79
2:00 PM	58	99	55	26	36	50	47	370	78
3:00 PM	63	102	53	23	35	54	44	372	78
4:00 PM	62	105	52	32	34	49	47	378	80
5:00 PM	47	71	32	23	38	41	43	293	62
6:00 PM	29	51	19	11	27	33	41	210	44
7:00 PM	28	38	13	9	20	28	42	177	37
8:00 PM	22	29	11	8	15	20	32	135	28

The City of Santa Barbara utilizes an occupancy level of 85 percent as a guideline for determining parking impacts. Based on the information provided in **Table 8**, the on-street parking demand meets or exceeds the City's 85 percent parking utilization threshold during the 11:00 am to 12:00 pm and 12:00 pm to 1:00 pm periods. The on-street parking demand reaches a parking utilization level of 80 percent or greater during the 10:00 am to 11:00 am and the 4:00 pm to 5:00 pm periods, but these periods do not meet or exceed the City's threshold and are therefore considered to be acceptable. The remaining periods throughout the day are also considered to be acceptable levels of on-street parking utilization. The survey count data is provided in **Appendix F**.

## EXISTING WITH PROJECT ON-STREET PARKING CONDITIONS

The total visitor parking demand was calculated using the City of Santa Barbara parking requirements that state that one visitor parking space must be provided for every four dwelling units. Based on this data, the minimum number of visitor parking spaces that must be provided to meet parking requirements would be 12 spaces.

Parking time-of-day factors for residential guest parking demand, obtained from The Urban Land Institute's (ULI) *Shared Parking Manual*, were used to calculate the hourly parking demand that the proposed project must meet throughout the day. It was assumed that this visitor parking demand would be reduced by two spaces to account for the visitor parking spaces to be provided on-site. Any remaining parking demand would need to be accommodated through the use of available on-street parking. The existing on-street parking utilization, as calculated above in **Table 8**, was added to any visitor parking demand that was not accommodated on-site and new parking utilization levels were calculated and are shown in **Table 9**.

As discussed above, the on-street parking demand of the surrounding commercial and office uses is greatest between 8:00 am and 5:00 pm. **Table 9** shows that during this time period the proposed project is expected to have a visitor parking demand of two spaces, which can be accommodated on-site. Therefore, the proposed project is not expected to add any additional demand for on-street parking during the mid-morning periods when on-street parking utilization levels meet or exceed the City's threshold for acceptable conditions.



TABLE 9: VISITOR PARKING DEMAND

Time	Time-of-Day Factors (%)	Total Spaces Required	On-Street Parking Spaces Needed	Existing On-Street Parking Demand	Existing with Project On-Street Parking Demand	On-Street Utilization Level (%)
8:00 AM	20	2	0	295	295	62
9:00 AM	20	2	0	350	350	74
10:00 AM	20	2	0	392	392	83
11:00 AM	20	2	0	414	414	87
12:00 PM	20	2	0	406	406	85
1:00 PM	20	2	0	373	373	79
2:00 PM	20	2	0	370	370	78
3:00 PM	20	2	0	372	372	78
4:00 PM	20	2	0	378	378	80
5:00 PM	40	5	3	293	296	62
6:00 PM	60	7	5	210	215	45
7:00 PM	100	12	10	177	187	39
8:00 PM	100	12	10	135	145	30

After 5:00 pm, the project's visitor parking demand increases and a portion of the proposed project's visitor parking demand would need to be accommodated by available on-street parking spaces. The demand for on-street parking on the surrounding streets begins to decrease significantly at 5:00 pm and the project's need for additional visitor parking is not expected to create any impacts on the overall on-street parking resources in the study area.

## ALTERNATIVES

As currently designed, the proposed project is expected to have a cumulative project significant impact at two study intersections. To satisfy CEQA standards, the following design alternatives were analyzed to determine if the proposed project would create any significant traffic impacts under each scenario:

- No Project;
- Current Zoning Future Development;
- Reduced Project;
- Parking Purchase; and
- Hybrid Project

Each design scenario listed above was analyzed qualitatively in comparison to the original proposed project.

### NO PROJECT ALTERNATIVE

This alternative analyzed the expected traffic conditions if the subject property were to remain an undeveloped, vacant lot. This analysis was conducted during the Future Base scenario presented earlier in this report. Under that scenario, the Gutierrez Street at Garden Street intersection is expected to operate at LOS D in both the morning and evening peak hours. The intersection of US-101 Northbound Ramps and Garden Street is also expected to operate at LOS D in the evening peak hour. Under these conditions, both of these intersections are considered to operate at unacceptable levels of service according to City of Santa Barbara standards. The remaining four analyzed intersections are expected to continue operating at LOS C or better during both peak hours.

The results of this analysis show that even if the proposed residential project is not developed, the two intersections that are expected to experience significant cumulative project impacts would still be expected to operate at unacceptable levels of service in both the morning and evening peak hours.

### CURRENT ZONING FUTURE DEVELOPMENT ALTERNATIVE

The project site has a current zoning of M-1 – Light manufacturing. Based on information provided by City of Santa Barbara staff, the maximum size development allowed under the current zoning designation would be 26,600 square feet from an existing demolition credit. The property is also eligible for a development plan approval allocation that could add an additional 3,000 square feet. This means that under current the existing zoning ordinances in place for the property, a total of 29,600 square feet of non-residential development can be built on the site.

To determine if a development project located on this site would create any significant cumulative project traffic impacts at the study intersections, a trip generation comparison was conducted between the proposed residential land use and the maximum size development allowed under the site's current zoning. There are two land use classifications provided in ITE's *Trip Generation* that could potentially meet the current permitted zoning for the proposed site: general light industrial and manufacturing. A general light industrial use is defined as a facility that employs fewer than 500 people and includes activities such as printing, material testing and the assembly of small equipment. A manufacturing use is defined as a facility whose primary activity is converting raw materials or parts into finished products. Trip generation estimates were developed for both of

these uses and compared to those previously calculated for the proposed residential condominiums. The results of this comparison are provided in **Table 10**.

**TABLE 10: COMPARISON OF TRIP GENERATION ESTIMATES**

535 E. Montecito Street	Land Use Code	ITE Trip Rates							Size (du/ksf)	Trips Ends Generated						
		Weekday AM			Weekday PM			Daily		Weekday AM			Weekday PM			Daily
		In	Out	Total	In	Out	Total			In	Out	Total	In	Out	Total	
Proposed Land Use																
Condominiums	230	0.07	0.37	0.44	0.35	0.17	0.52	5.86	48	3	18	21	17	8	25	281
Subtotal										3	18	21	17	8	25	281
Zoned Land Use																
General Light Industrial	110	0.81	0.11	0.92	0.12	0.86	0.98	6.97	29.6	24	3	27	4	25	29	206
Difference between Residential and Light Industrial Land Uses										(21)	15	(6)	13	(17)	(4)	75
Manufacturing	140	0.56	0.17	0.73	0.27	0.47	0.74	3.82	29.6	17	5	22	8	14	22	113
Difference between Residential and Manufacturing Uses										(14)	13	(1)	9	(6)	3	168
Note: DU – dwelling unit; KSF – 1,000 square feet. Source: Institute of Transportation Engineers. Trip Generation. 7 <sup>th</sup> Edition.																

As shown in **Table 10**, the proposed residential use is expected to generate a greater number of daily vehicle trips than the currently permitted uses, but it is expected to produce less peak hour trips than the maximum allowable industrial use and approximately the same number of peak hour trips as the maximum allowable manufacturing use. The proposed residential project will also not increase the number of vehicle trips expected to travel through the significantly-impacted intersections when compared to the allowable uses, as shown in **Table 11**.

**TABLE 11: EXPECTED PEAK HOUR VEHICLE TRIPS TRAVELING THROUGH IMPACTED INTERSECTIONS**

Intersection	Land Use		
Garden St at Gutierrez St	Residential Condominiums	General Light Industrial	Manufacturing
Morning Peak Hour	14	16	10
Evening Peak Hour	12	10	11
Garden St at US-101 NB Ramps	Residential Condominiums	General Light Industrial	Manufacturing
Morning Peak Hour	9	10	9
Evening Peak Hour	10	10	9

Based on the traffic volumes presented in **Table 11**, the overall difference between the expected vehicle trips generated by the proposed residential use and those generated by the other allowable uses is minimal and is not considered great enough to create any significant traffic impacts that would not occur if either of the permitted uses were developed on the site.

## REDUCED PROJECT ALTERNATIVE

This project design alternative would reduce the number of residential units to be constructed as a part of the project to a level where no significant cumulative project traffic impacts would occur. The maximum number of residential units that can be included in the proposed project without adding more than four vehicle trips to the Gutierrez Street at Garden Street intersection can be calculated by using the following proportionality equation:

$$\frac{V_{Top}}{T_{Rop}} = \frac{V_{Tnsi}}{T_{Rrp}}$$

where,

$V_{Top}$  = vehicle trips generated by Original Proposed Project;  
 $V_{Tnsi}$  = maximum vehicle trips generated by project that do not result in a significant cumulative project impact;  
 $T_{Rop}$  = total number of residential units in Original Proposed Project; and  
 $T_{Rrp}$  = maximum number of residential units allowed in Reduced Project alternative

When this equation is applied to the morning peak hour conditions occurring at the Gutierrez Street at Garden Street intersection, it would appear as follows:

$$\frac{14 \text{ veh. trips}}{48 \text{ res. units}} = \frac{4 \text{ veh. trips}}{T_{Rrp} \text{ res. units}}$$

$$T_{Rrp} = \frac{4(48)}{14}$$

$$T_{Rrp} = 13.7 \text{ res. units}$$

Based on this calculation, the proposed project would have to be reduced to less than 14 residential units to ensure that four or less vehicle trips are traveling through the Gutierrez Street at Garden Street intersection. **Table 12** shows the maximum number of residential units that could be included in the proposed project and not result in a significant cumulative project traffic impact at either of the two previously identified intersections during both the morning and evening peak hours.

**TABLE 12: MAXIMUM NUMBER  
OF RESIDENTIAL UNITS UNDER  
REDUCED PROJECT ALTERNATIVE**

Time Period	Vehicle Trips Generated by Original Project	Maximum Number of Residential Units Allowed
<b>Gutierrez Street at Garden Street</b>		
Morning Peak Hour	14	13.7
Evening Peak Hour	12	16.0
<b>US-101 Northbound Ramps at Garden Street</b>		
Morning Peak Hour	9	21.3
Evening Peak Hour	10	19.2

As shown in **Table 12**, the maximum number of residential units that can be included in the proposed project before a significant cumulative project traffic impact is created at either intersection during either time period is 13 units. To mitigate the significant cumulative project impact at the US-101 Northbound Ramps at Garden Street intersection only, a total of 19 residential units could be constructed as part of the project.

## PURCHASE PARKING ALTERNATIVE

### Description of Alternative

This project design alternative would require some residents of the project to purchase a separate parking space from a common parking lot located beneath the residential units. Under this alternative design, Buildings 1 and 6 would remain as initially designed with direct access between residential dwelling units and tandem garages located on the ground level. Residents of these units would purchase both the unit and the attached parking garage at a slightly higher price than the units located in the remaining buildings.

Buildings 2 and 3 would be merged together to create a single structure extending from the northern edge of Building 2 to the southern edge of Building 3. The configuration would also be applied to Buildings 4 and 5, as shown in **Figure 10**. Each of the merged buildings would consist of three levels, with the residential units on the second and third levels and the ground-level used for parking. The residents of these buildings would be required to purchase two separate parking spaces located in the parking garages beneath each building and would not have direct access from their individual units. If a resident did not wish to purchase one or both parking spaces, they would not be allowed to park a greater number of personal vehicles than parking spaces they owned on the property.

The parking layout within Building 2-3, as shown in **Figure 11**, would include a total of 32 designated residential parking spaces, with 28 spaces provided via tandem parking stalls, and six visitor parking spaces. All parking spaces would be 20 feet in length, a minimum of 10 feet wide with a 30-foot drive aisle. Access would be granted via a new driveway from Calle Cesar Chavez at the site of the previously identified driveway in the original project alternative. The parking layout within Building 4-5 is shown in **Figure 12** and would also include 32 designated residential parking spaces in tandem stalls and 10 visitor parking spaces. These spaces would have the same dimensions as those described for Building 2-3. Access to this parking area would be provided via Montecito Street. The total number of parking spaces provided on the project site using this design would be 96 residential parking spaces and 18 visitor spaces. The project would then have a total of 114 parking spaces which would meet City code requirements.

The parking garage located within Building 4-5 would be accessed using a new driveway from Montecito Street located approximately 80 feet east of the existing driveway that the proposed project was to share for access to Buildings 4 and 5. Traffic operations at this new driveway are not expected to create any additional traffic impacts due to the limited number of vehicles expected to utilize this facility. Approximately one-third of the project's total residents would utilize this driveway when entering or exiting the project site. Using the trip generation estimates provided in **Table 3**, this would result in an expected traffic volume of seven vehicles during the morning peak hour and eight vehicles in the evening peak hour.

### Traffic Impact Reduction Analysis

Under this alternative, it is assumed that residents who do not purchase parking spaces would not be allowed to park a personal vehicle on-site and would require alternative means to travel to/from the site. This alternative would decrease the number of cumulative project trips since these individuals would be forced to use alternative modes of transportation to travel to/from the project site. To ensure a conservative analysis, it was determined that the trip generation estimate associated with each residential unit that was "removed" (i.e., for each residential unit participating in the parking space purchase program) would be reduced to one-half its actual value to account for residents who only purchase one parking space, visitors trips, car and vanpool trips, deliveries and other activities that would still occur at the project site.



Calle Cesar Chavez

Montecito Street



Combined Building Area and Driveway

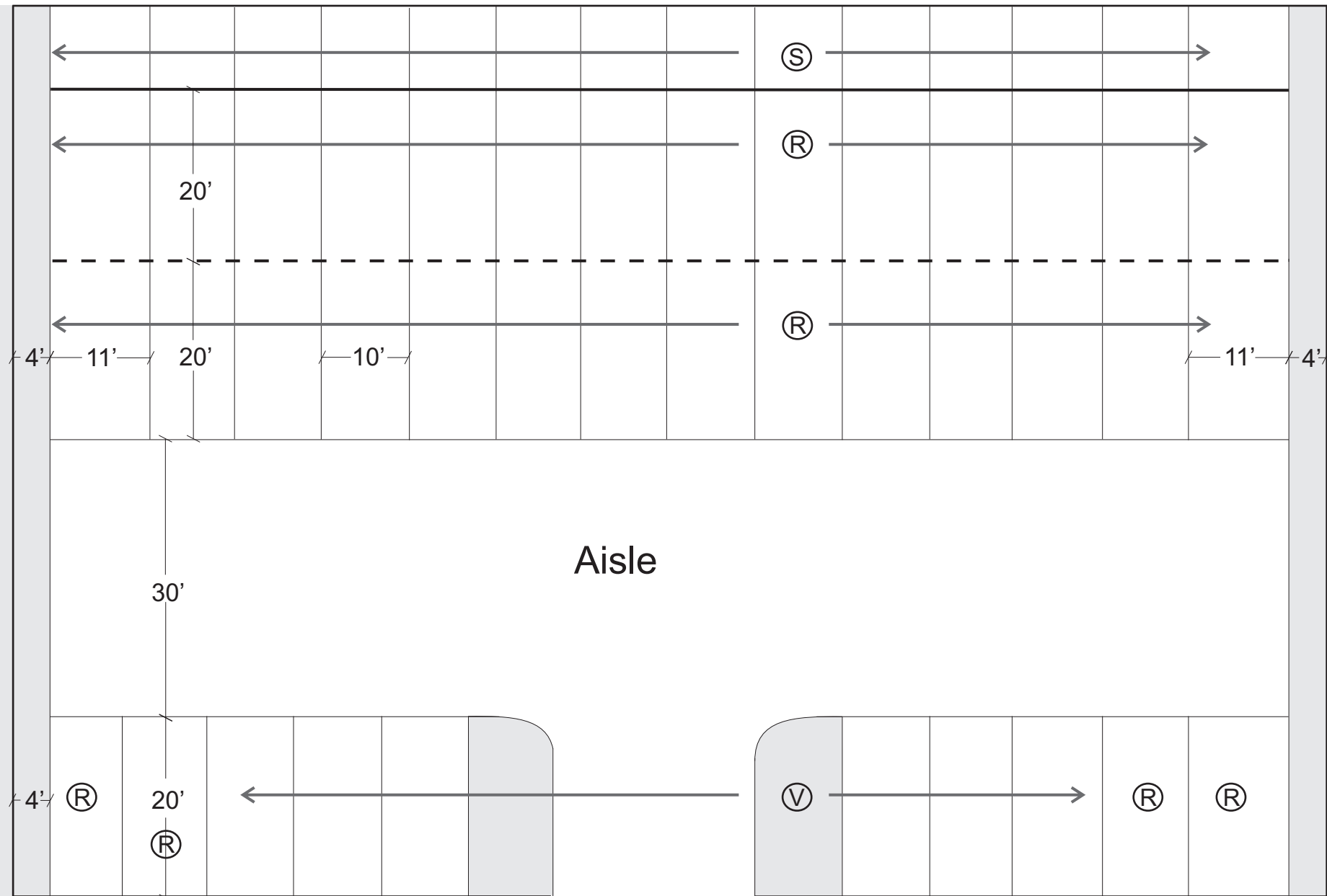
- ① 42 parking spaces located below 16 residential units
- ② 38 parking spaces located below 16 residential units

Not to Scale

Source: Modified from Peikert Group Architects, 2007



NOT TO SCALE



Total Parking Provided

Resident - 32 Spaces

Visitor - 6 Spaces

(R) Residential Parking

(V) Visitor Parking

(S) Storage



NOT TO SCALE





Based on this analysis, the number of residential units that must participate in the parking space purchase program to reduce the project's significant cumulative traffic impacts to a less than significant level (i.e., add no more than four vehicle trips to the Gutierrez Street at Garden Street intersection) can be calculated by using an equation similar to that used in the Reduced Project alternative. The only difference between the two alternatives is that for each residential unit participating in the Purchase Parking alternative it was assumed that the unit would generate traffic similar to one-half of the traffic generated by a standard residential unit. Therefore, the estimated number of residential units that must participate in the Purchase Parking program would be twice the number of units removed as part of the Reduced Project alternative.

Based on this methodology, the values calculated as the maximum number of residential units that could be constructed under the Reduced Project alternative, as shown in **Table 12**, were reduced by half for each of the intersections and time periods. These values represent the maximum number of residential units that can be constructed as part of the project before a significant cumulative project impact occurs. **Table 13** shows the number of the proposed 48 residential units that must participate in the Purchase Parking program to reduce the cumulative project traffic impacts to a less than significant level.

**TABLE 13: ESTIMATED NUMBER OF  
RESIDENTIAL UNITS THAT MUST PARTICIPATE  
IN THE PURCHASE PARKING ALTERNATIVE**

Time Period	Peak Hour Trips Generated by Original Project	Estimated Number of Residential Units Required to Participate in Purchase Parking Program
<b>Gutierrez Street at Garden Street</b>		
Morning Peak Hour	14	41
Evening Peak Hour	12	40
<b>US-101 Northbound Ramps at Garden Street</b>		
Morning Peak Hour	9	37
Evening Peak Hour	10	38

As shown in **Table 13**, the estimated number of residential units that must participate in the Purchase Parking alternative to reduce the project's significant cumulative project traffic impact to a less than significant level at either intersection during either time period is 41 units. To mitigate the cumulative-project impacts at only the US-101 Northbound Ramps at Garden Street intersection, a total of 38 residential units must participate in the Purchase Parking program. Since 16 residential units are expected to retain the attached garage configuration, only 32 of the proposed units could participate in the parking space purchase program. Therefore, this alternative may reduce traffic generated by the proposed project, but would not be capable of reducing the project's cumulative traffic impacts to a less than significant level.

## HYBRID DESIGN ALTERNATIVE

This design alternative was analyzed using a combination of the trip reduction characteristics of the Reduced Project and Purchase Parking alternatives. The analysis conducted under this alternative involves two steps. First, the number of residential units opting not to purchase separate on-site parking spaces were estimated and the reduction in vehicle trip generation provided by the Purchase Parking alternative were calculated using the following equation:

$$\frac{V_{Top}}{TRop} = \frac{V_{Tpp}}{NP(TRpp)}$$

where,

$V_{Top}$  = total vehicle trips generated by Original Project;  
 $V_{Tpp}$  = total vehicle trips under Purchase Parking alternative;  
 $TRop$  = total number of residential units in Original Project;  
 $NP$  =  $1 - \frac{0.5 \times (\text{total number of residential units not purchasing parking spaces})}{(\text{total number of residential units in Original Project})}$   
 $TRpp$  = total number of residential units expected to purchase on-site parking

If this equation is applied to the morning peak hour conditions occurring at the Gutierrez Street at Garden Street intersection and 90 percent of the project's residents are expected to purchase on-site parking spaces, the number of vehicle trips the project is expected to generate are as follows:

$$\frac{14 \text{ veh. Trips}}{48 \text{ res. units}} = \frac{V_{Tpp} \text{ veh. Trips}}{(0.95)(48 \text{ res. Units})}$$

$$V_{Tpp} = \frac{14(0.95)(48)}{48}$$

$$V_{Tpp} = 13.3 \text{ vehicle trips}$$

The methodology developed for the Reduced Project alternative analysis is now applied using the total number of vehicle trips calculated under the Purchase Parking alternative analysis. The following equation was used in this calculation:

$$\frac{V_{Tpp}}{TRop} = \frac{V_{Tnsi}}{TRhy}$$

where,

$V_{Tpp}$  = total vehicle trips generated by Purchase Parking alternative;  
 $V_{Tnsi}$  = maximum vehicle trips generated by project that do not result in a significant cumulative project impact;  
 $TRop$  = total number of residential units in Original Project;  
 $TRhy$  = total number of residential units to be constructed under Hybrid Design alternative

Using the vehicle trips calculated from the Purchase Parking methodology, the maximum number of residential units that can be constructed before a significant cumulative project traffic impact occurs at the Garden Street intersection would be as follows:

$$\frac{13.3 \text{ veh. trips}}{48 \text{ res. units}} = \frac{4 \text{ veh. trips}}{\text{TRhy res. units}}$$

$$\text{TRhy} = \frac{4(48)}{13.3}$$

$$\text{TRhy} = 14.4 \text{ res. units}$$

Using this two step approach, **Table 14** shows the maximum number of residential units that can be constructed before the project creates a significant cumulative project traffic impact for different levels of participation by residents in the Purchase Parking alternative. This analysis was conducted for both significantly impacted intersections.

**TABLE 14: MAXIMUM NUMBER OF  
RESIDENTIAL UNITS UNDER A COMBINED PURCHASE  
PARKING/REDUCED NUMBER OF UNITS ALTERNATIVE**

Resident Participation Level	Peak Hour Trips Generated by Original Project	Peak Hour Trips Generated After Implementation of Purchase Parking Alternative	Maximum Number of Residential Units Allowed
<b>Gutierrez Street at Garden Street – Morning Peak Hour</b>			
• 10 Percent	14	13.3	14.4
• 20 Percent	14	12.6	15.2
• 30 Percent	14	11.9	16.1
• 40 Percent	14	11.2	17.1
• 50 Percent	14	10.5	18.3
<b>Gutierrez Street at Garden Street - Evening Peak Hour</b>			
• 10 Percent	12	11.4	16.8
• 20 Percent	12	10.8	17.8
• 30 Percent	12	10.2	18.8
• 40 Percent	12	9.6	20.0
• 50 Percent	12	9.0	21.3
<b>US-101 Northbound Ramps at Garden Street - Morning Peak Hour</b>			
• 10 Percent	9	8.6	22.3
• 20 Percent	9	8.1	23.7
• 30 Percent	9	7.7	24.9
• 40 Percent	9	7.2	26.7
• 50 Percent	9	6.8	28.2
<b>US-101 Northbound Ramps at Garden Street - Evening Peak Hour</b>			
• 10 Percent	10	9.5	20.2
• 20 Percent	10	9.0	21.3
• 30 Percent	10	8.5	22.6
• 40 Percent	10	8.0	24.0
• 50 Percent	10	7.5	25.6

As shown in **Table 14**, the number of residential units that can be constructed and reduce the project's cumulative traffic impact to a less than significant level varies depending upon the number of residents who purchase parking spaces. If all the residents decide to purchase parking spaces, the Purchase Parking reduction is not longer valid and this alternative would be similar to the Reduced Project alternative. Conversely, if all residents did not purchase parking spaces, the maximum number of units that can be constructed without creating a significant cumulative project traffic impact at either intersection with Garden Street would be 27 units.

## TRAFFIC SIGNAL WARRANT ANALYSIS

The justification for the installation of a traffic signal at an intersection is based on warrants stated in the Caltrans *Traffic Manual* and the *Manual on Uniform Traffic Control Devices*, published by the Federal Highway Administration. Traffic conditions at an intersection must meet specific warrants, or criteria, before a traffic signal is considered necessary. This process is not the only manner in which a traffic signal can be justified for installation, but it is the most widely recognized and followed.

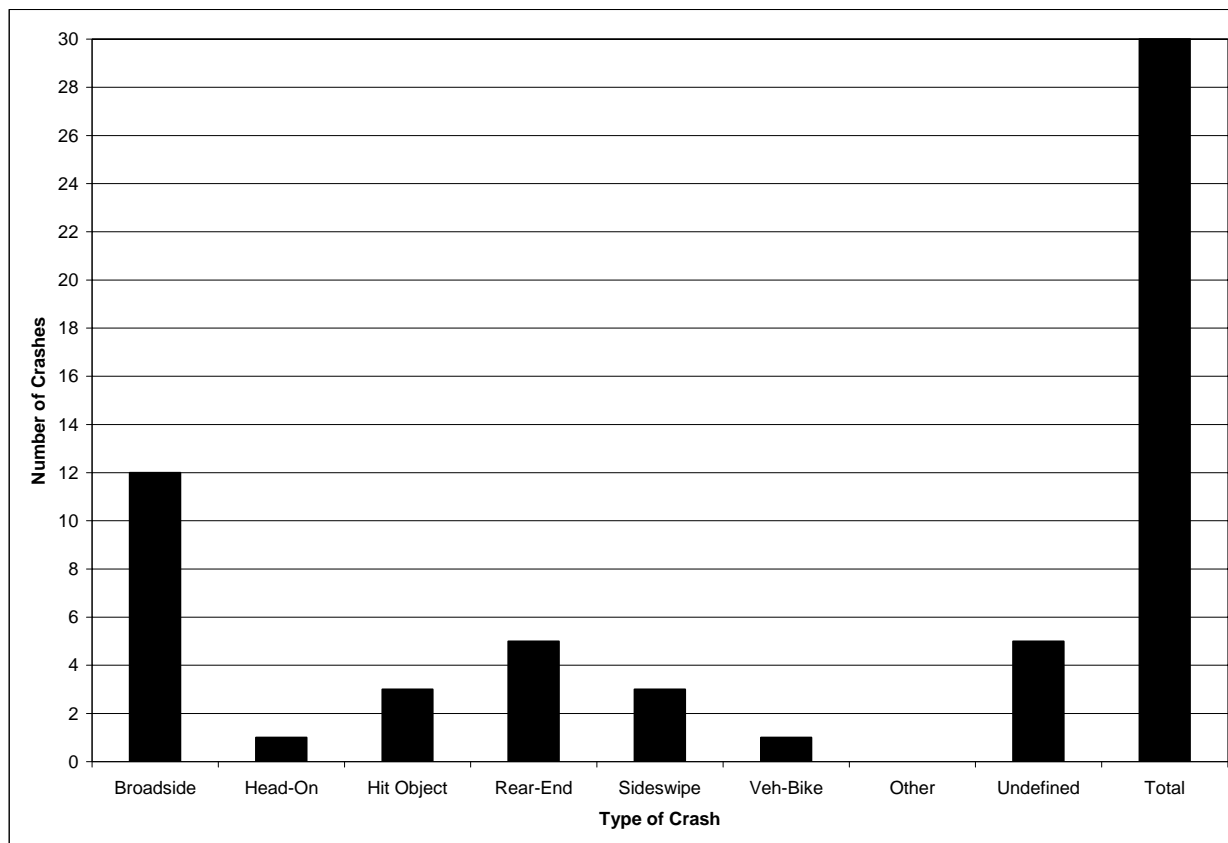
A traffic signal warrant analysis was conducted for the Gutierrez Street at Olive Street intersection during each scenario. The results of this analysis showed that the traffic conditions at this intersection did not satisfy the minimum requirements for either the Peak Hour Volume or Peak Hour Delay warrants in any of the scenarios analyzed. The analysis worksheets for these warrants are provided in **Appendix D**.

A review of the collision history occurring at this intersection was also conducted, as detailed in the following section, and it was determined that the conditions occurring at this intersection did not satisfy the Crash Experience warrant either.

## COLLISION HISTORY REVIEW AND ANALYSIS

A review of the collision history at the intersection of Gutierrez Street and Olive Street was conducted as a part of this traffic impact analysis. Based on collision data provided by the City of Santa Barbara, a total of 30 collisions have occurred at this intersection between 1/1/1989 and 12/31/2006, as shown in **Figure 13**.

**FIGURE 13: GUTIERREZ STREET AT OLIVE STREET  
ACCIDENT HISTORY 1989 - 2006**



Of this total, twelve were broadside-related collisions with five collisions resulting from vehicles traveling in the northbound direction along Olive Street and four in the southbound direction. The three remaining collisions resulted from vehicles attempting to enter the westbound traffic flow from an on-street parking space located along Gutierrez Street. In addition to broadside-related collisions, this intersection has also experienced five rear-end collisions with one occurring in the northbound direction and two in both the southbound and eastbound directions. The collision data obtained from City staff is provided in **Appendix E**.

Currently, this intersection is stop-controlled in the northbound and southbound approaches along Olive Street, with traffic traveling westbound along Gutierrez Street unimpeded. More than half of the collisions occurring at this intersection involve vehicles either attempting to cross Gutierrez Street or vehicles stopping to avoid a collision with a vehicle traveling along this street. Based on the type and number of collisions occurring at this intersection, it would appear that vehicles entering this intersection from Olive Street are having difficulty seeing traffic traveling westbound on Gutierrez

Street and are either being hit broadside by these vehicles or are being rear-ended by vehicles behind them when they stop to avoid a collision with a vehicle on Gutierrez Street.

A field review of this intersection showed that the existing building located in the southeast corner of the intersection obstructs the sightline for vehicles traveling northbound on Olive Street. In addition, several trees and utility poles are currently located immediately behind the curb on both sides of the street, especially along the southern edge of Gutierrez Street. To further complicate the situation, on-street parking is also allowed along both sides of the street within close proximity to the intersection. These obstructions are not providing vehicles traveling on Olive Street a clear view of oncoming traffic. As a result, these vehicles must pull forward up to and sometimes beyond the edge of Gutierrez Street to have a clear view of oncoming traffic. Vehicles that do not pull this far forward must attempt to cross Gutierrez Street relying on only partial or incomplete visual information regarding the speed and volume of oncoming traffic.

A preliminary analysis of this intersection identified the following alternatives that could be implemented at this intersection to help reduce the possibility of broadside and rear-end collisions:

1. Reduce the speed limit along Gutierrez Street, restrict parking for 250 feet east of Olive Street and install appropriate warning signage, striping and flashers upstream from Olive Street; or
2. Remove or relocate all trees and utility poles and restrict parking along both sides of Gutierrez Street within 250 feet east of Olive Street.

Based on experience from similar intersection configurations, the installation of a traffic signal has been shown to significantly reduce the occurrence of both broadside and rear-end collisions, but additional and more detailed analysis would need to be conducted before this improvement could be recommended.

It should be noted that the proposed project will add additional traffic at this intersection, but the incremental increase in vehicles is not great enough to significantly increase the possible occurrence of a vehicle collision.

## SITE ACCESS AND CIRCULATION ANALYSIS

The proposed project will have three separate points of access, two driveways located along Calle Cesar Chavez and one along Montecito Street. The two driveways fronting onto Calle Cesar Chavez will serve the 32 residential units located in Buildings 1, 2, 3 and 6 and are expected to sufficiently accommodate the project-related traffic volumes. The driveway located along Montecito Street will be shared with the land uses located immediately adjacent to the west of project site and will provide access to the remaining 16 dwelling units. Due to the low number of project-related vehicle trips forecast to be generated by the proposed project, this facility is also expected to fully accommodate project traffic volumes with no adverse affects to existing traffic operations.

## SHORT-TERM CONSTRUCTION IMPACT ANALYSIS

There are two phases of construction that are generally considered to have the greatest potential to impact traffic operations in the areas surrounding the project site: clearing and grading. During these two phases, the site must first be striped of all obstructions and debris that would interfere with the overall development of the site. Next, the site is then graded and shaped so as to accommodate the proposed project in terms of structural support, drainage and landscaping. These phases also result in the need for debris and excavated soil to be removed from the site using dump trucks.

The following conditions must be met before the City will approve a construction traffic control plan that would be implemented for this project:

- All construction equipment, material and activities must remain on-site and any street closures that would still be needed would be limited to a few days per event.
- Designated haul routes for all construction-related trucks, three tons or more, must be approved by the Transportation Engineer and that these trips could not be scheduled during peak hours (7:00 am to 9:00 am and 4:00 pm to 6:00pm).
- All construction-related vehicles must be parked on-site or at an off-site facility approved by the Public Works Director.
- Deliveries of construction materials or supplies that would require a street closure must be approved by the Transportation Manager and shall not remain in the public right of way for longer than a few days.

A preliminary construction schedule incorporating these conditions was developed and is provided in **Appendix G**. The site clearing and grubbing phase is expected to require a total of five workers and two days to complete. During this phase, it is estimated that a total of eight truck load round trips, approximately 120 cubic yards, of debris will be removed from the project site. Based on this information, this construction phase is expected to generate no more than ten peak hour trips (five in both the AM and PM peak hours) and a total of eighteen daily trips. The peak hour vehicle trips would be restricted to workers traveling to and from the site each day. The remaining eight daily trips would be dump trucks traveling to the site and removing debris. These trips would occur throughout each day of the two day period.

The amount of construction-related traffic will increase during the grading phase. This phase is expected to require six workers and four weeks to complete. An estimated 1,800 cubic yards of soil will be imported to the site, requiring approximately 90 truck load round trips. Under these conditions, this construction phase is expected to generate a maximum of twelve peak hour trips (six in both the AM and PM peak hours) and an average of twenty-one daily trips. The peak hour trips would again be made by workers traveling to and from the project site. The remaining nine daily trips would be dump trucks traveling to and from the site while importing the needed soil.

Generally, construction activities associated with the proposed project are expected to contribute approximately eleven vehicle trips in both the morning and evening peak hours for a period of time lasting approximately four weeks. Due to the limited number of peak hour trips being generated and the short duration in which these trips are expected to occur, no construction-related traffic impacts are expected to occur.



## CONGESTION MANAGEMENT PROGRAM ANALYSIS

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Santa Barbara County Association of Governments (SBCAG). The CMP for Santa Barbara County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system. This section describes the analysis of project-related impacts on the CMP system.

Based on the information provided in **Table 3** of this report, the proposed project is expected to generate a total of 281 daily trips, 21 morning peak hour trips and 25 evening peak hour trips. These values fall far short of the CMP thresholds of 50 peak hour or 500 daily trips. Therefore, no further CMP analysis is required.

# **APPENDIX A**

## **EXISTING TRAFFIC COUNTS**

**(AS PROVIDED IN ICU WORKSHEETS IN ATE'S APRIL 12, 2007 STUDY)**

LOS PORTALES CONDOMINIUMS #04072.01

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: OCTOBER 2006

TIME PERIOD: A.M. PEAK HOUR

N/S STREET: GARDEN

E/W STREET: HALEY

CONTROL TYPE: SIGNAL

REF: 1AM

TRAFFIC VOLUME SUMMARY														
NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND					
L	T	R	L	T	R	L	T	R	L	T	R			
VOLUMES														
(A) EXISTING:	0	/	313	376	37	325	0	20	392	168	0	0	0	0
(B) PROJECT-ADDED	0	3	7	1	0	0	0	0	0	0	0	0	0	0
(C) CUMULATIVE	0	350	417	44	376	0	21	421	204	0	0	0	0	0

GEOMETRICS											
NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
TR	TL	TR	TL	TR	TR	TL	TR	TR	TL	TR	TR
TRAFFIC SCENARIOS											

SCENARIO 1 – EXISTING VOLUMES (A)  
 SCENARIO 2 – EXISTING + PROJECT VOLUMES (A+B)  
 SCENARIO 3 – CUMULATIVE (C)  
 SCENARIO 4 – CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS												
MOVE-MENTS		# OF LANES	CAPACITY			SCENARIO VOLUMES				SCENARIO V/C RATIOS		
			1	2	3	4	1	2	3	4		
NBL	0	0	0	0	0	0	0.420	-	0.423	-	0.469	-
NBT	1	1600	313	316	350	353	-	-	-	-	-	-
NBR (b)	0	0	359	360	396	397	-	-	-	-	-	-
SBL	0	0	37	38	44	45	0.113	0.113	0.131	0.132	-	-
SBT	2	3200	325	325	376	376	-	-	-	-	-	-
SBR	0	0	0	0	0	0	-	-	-	-	-	-
EBL	0	0	20	20	21	21	0.129	0.129	0.138	0.138	-	-
EBT	2	3200	392	392	421	421	0.097	0.097	0.118	0.118	-	-
EBR (b)	1	1600	155	155	188	188	-	-	-	-	-	-
WBL	0	0	0	0	0	0	-	-	-	-	-	-
WBT	0	0	0	0	0	0	-	-	-	-	-	-
WBR	0	0	0	0	0	0	-	-	-	-	-	-

TOTAL INTERSECTION CAPACITY UTILIZATION: SCENARIO LEVEL OF SERVICE:											
LOS TIME:						0.100	0.100	0.100	0.100	0.100	0.100
						0.649	0.652	0.704	0.707	0.707	0.707
						B	B	B	B	B	B

NOTES:  
 RTOR: (a) 5%  
 (b) 8%

LOS PORTALES CONDOMINIUMS #04072.01

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: OCTOBER 2006

TIME PERIOD: P.M. PEAK HOUR

N/S STREET: GARDEN

E/W STREET: HALEY

CONTROL TYPE: SIGNAL

REF: 1PM

TRAFFIC VOLUME SUMMARY											
NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
L	T	R	L	T	R	L	T	R	L	T	R
VOLUMES											
(A) EXISTING:	0	309	251	41	456	0	19	593	330	0	0
(B) PROJECT-ADDED	0	1	6	3	0	0	0	2	0	0	0
(C) CUMULATIVE	0	378	264	45	546	0	20	630	331	0	0

GEOMETRICS											
NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
L	T	R	L	T	R	L	T	R	L	T	R
LANE GEOMETRICS											
TRAFFIC SCENARIOS											

SCENARIO 1 - EXISTING VOLUMES (A)

SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)

SCENARIO 3 - CUMULATIVE (C)

SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS															
MOVE-MENTS		# OF LANES		CAPACITY		SCENARIO VOLUMES				SCENARIO V/C RATIOS					
						1	2	3	4	1	2				
NBL	0	0		0		0	0	0	0	0.338	0.341				
NBT	1	1600		309		310	378	379			0.399				
NBR (b)	0	0		231		236	261	267							
SBL	0	0		41		44	45	48							
SBT	2	3200		456		456	546	546		0.155	0.156				
SBR	0	0		0		0	0	0			0.185				
EBL	0	0		19		19	20	20							
EBT	2	3200		593		595	630	632		0.191	0.192				
EBR (b)	1	1600		281		291	332	332		0.176	0.176				
WBL	0	0		0		0	0	0							
WBT	0	0		0		0	0	0							
WBR	0	0		0		0	0	0							
LOS TIME										0.100	0.100				
TOTAL INTERSECTION CAPACITY UTILIZATION: SCENARIO LEVEL OF SERVICE:										0.633	0.702				
										B	B				
											C				

NOTES:

RTOR: (a) 8%

(b) 15%

LOS PORTALES CONDOMINIUMS #04072.01

INTERSECTION CAPACITY UTILIZATION WORKSHEET

COUNT DATE: JULY 2005

TIME PERIOD: A.M. PEAK HOUR

N/S STREET: GARDEN

E/W STREET: GUTIERREZ

CONTROL TYPE: SIGNAL

REF: 24M

TRAFFIC VOLUMES SUMMARY														
VOLUMES			NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	L	T	L	T	R	L	T	R	L	T	R	L	T	R
(A) EXISTING:	288	575	0	0	387	18	0	0	0	0	0	132	577	300
(B) PROJECT-ADDED	0	1	0	0	0	0	0	0	0	0	0	1	8	3
(C) CUMULATIVE	371	644	0	0	469	18	0	0	0	0	0	120	546	319

GEOMETRICS														
LANE GEOMETRICS			NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	LL	T		T	TR		T	TR		L	T		L	TR
SCENARIO 1 - EXISTING VOLUMES (A)														
SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)														
SCENARIO 3 - CUMULATIVE (C)														
SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)														

LEVEL OF SERVICE CALCULATIONS														
MOVE-MENTS			CAPACITY			SCENARIO VOLUMES				SCENARIO V/C RATIOS				
	# OF LANES					1	2	3	4	1	2	3	4	
NBL	2		3200			288	288	311	311	0.090		0.090		0.097
NBT	1		1600			575	575	644	645	0.359		0.359		0.403
NBR	0		0			0	0	0	0	-		-		-
SBL	0		0			0	0	0	0	-		-		-
SBT	2		3200			387	387	469	469	0.126		0.126		0.152
SBR (a)	0		0			15	15	16	16	-		-		-
EBL	0		0			0	0	0	0	-		-		-
EBT	0		0			0	0	0	0	-		-		-
EBR	0		0			0	0	0	0	-		-		-
WBL	1		1600			132	133	120	121	0.083		0.083		0.076
WBT	1		1600			577	575	546	554	0.361		0.361		0.346
WBT (b)	1		1600			267	270	284	287	0.167		0.167		0.179
TOTAL INTERSECTION CAPACITY UTILIZATION: SCENARIO LEVEL OF SERVICE:										0.100	*	0.100	*	0.100
										0.820	D	0.820	D	0.849
										D	D	D	D	D

RTOR: (a) 17%

(b) 11%

NOTES:

Printed: 04/12/07

LOS PORTALES CONDOMINIUMS #04072.01  
 INTERSECTION CAPACITY UTILIZATION WORKSHEET  
 COUNT DATE: OCTOBER 2006  
 TIME PERIOD: P.M. PEAK HOUR  
 N/S STREET: GARDEN  
 E/W STREET: GUTIERREZ  
 CONTROL TYPE: SIGNAL

REF: 2PM

TRAFFIC VOLUMES SUMMARY														
VOLUMES			NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
	L	T	R	L	T	R	L	T	R	L	T	L	T	R
(A) EXISTING:	309	500	0	0	685	55	0	0	0	101	407	355		
(B) PROJECT-ADDED	0	6	0	0	0	0	0	0	0	0	3	2		
(C) CUMULATIVE	336	623	0	0	901	67	0	0	0	108	508	361		

LANE GEOMETRICS

NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND		
LL	T	TR	LL	T	TR	LL	T	TR	LL	T	TR

SCENARIO 1 - EXISTING VOLUMES (A)  
 SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)  
 SCENARIO 3 - CUMULATIVE (C)  
 SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)

LEVEL OF SERVICE CALCULATIONS														
MOVE-MENTS	# OF LANES	CAPACITY	SCENARIO VOLUMES				SCENARIO V/C RATIOS							
			1	2	3	4	1	2	3	4				
NBL	2	3200	309	309	336	336	0.097	0.097	0.105	0.105				
NBT	1	1600	508	514	623	629	0.318	0.318	0.389	0.393				
NBR	0	0	0	0	0	0	-	-	-	-				
SBL	0	0	0	0	0	0	-	-	-	-				
SBT	2	3200	885	885	901	901	0.293	0.293	0.302	0.302				
SBR (a)	0	0	52	52	64	64	-	-	-	-				
EBL	0	0	0	0	0	0	-	-	-	-				
EBT	0	0	0	0	0	0	-	-	-	-				
EBR	0	0	0	0	0	0	-	-	-	-				
WBL	1	1600	101	101	108	108	0.063	0.063	0.068	0.068				
WBT	1	1600	487	490	508	511	0.304	0.304	0.318	0.319				
WBT (b)	1	1600	355	357	361	363	0.222	0.222	0.226	0.227				

TOTAL INTERSECTION CAPACITY UTILIZATION: SCENARIO LEVEL OF SERVICE:										
LAST TIME										
C			C			C			D	
0.100			0.100			0.100			0.100	
0.294			0.294			0.294			0.294	
0.796			0.796			0.796			0.796	
0.825			0.825			0.825			0.825	
0.826			0.826			0.826			0.826	

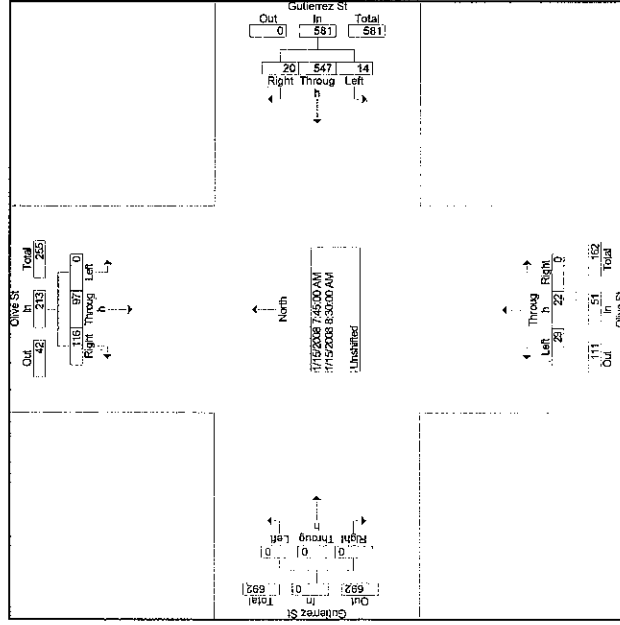
NOTES:  
 RTOR: (a) 5%  
 (b) 0%

LOS PORTALES CONDOMINIUMS #04072.01														REF: 4AM
INTERSECTION CAPACITY UTILIZATION WORKSHEET														
COUNT DATE: OCTOBER 2006														
TIME PERIOD: A.M. PEAK HOUR														
N/S STREET: GARDEN														
E/W STREET: US 101 NB RAMPS														
CONTROL TYPE: SIGNAL														
TRAFFIC VOLUME SUMMARY														
VOLUMES		NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND
		L	T	R		L	T	R		L	T	R		
(A) EXISTING:		198	694	0	0	411	537	0	0	0	119	0	218	
(B) PROJECT-ADDED		0	1	0	0	1	6	0	0	0	0	0	0	
(C) CUMULATIVE		214	705	0	0	482	584	0	0	0	128	0	242	
GEOMETRICS														
LANE GEOMETRICS		NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND
		L	T			L	T			L	T			L
TRAFFIC SCENARIOS														
SCENARIO 1 - EXISTING VOLUMES (A)														
SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)														
SCENARIO 3 - CUMULATIVE (C)														
SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)														
LEVEL OF SERVICE CALCULATIONS														
MOVE- MENTS	# OF LANES	SCENARIO VOLUMES								SCENARIO V/C RATIOS				
		1	2	3	4	1	2	3	4	1	2	3	4	
NBL	1	1600	198	198	214	714				0.124	0.124	0.134	0.134	
NBT	2	3200	594	595	765	766				0.217	0.217	0.239	0.239	
NBR	0	0	0	0	0	0				-	-	-	-	
SBL	0	0	0	0	0	0				-	-	-	-	
SBT	2	3200	411	412	482	483				0.128	0.129	0.151	0.151	
SBR (a)	1	1600	408	413	444	448				0.255	0.258	0.278	0.280	
EBL	0	0	0	0	0	0				-	-	-	-	
EBT	0	0	0	0	0	0				-	-	-	-	
EBR	0	0	0	0	0	0				-	-	-	-	
WBL	1	1600	119	119	128	128				0.074	0.074	0.080	0.080	
WBT	0	0	0	0	0	0				-	-	-	-	
WBR (a)	1	1600	122	122	136	136				0.076	0.076	0.085	0.085	
LOST TIME:										0.100	0.100	0.100	0.100	
TOTAL INTERSECTION CAPACITY UTILIZATION:										0.428	0.429	0.470	0.470	
SCENARIO LEVEL OF SERVICE:										A	A	A	A	
NOTES:														
RTOR: (a) 24% (b) 44%														
Printed: 10/15/06														

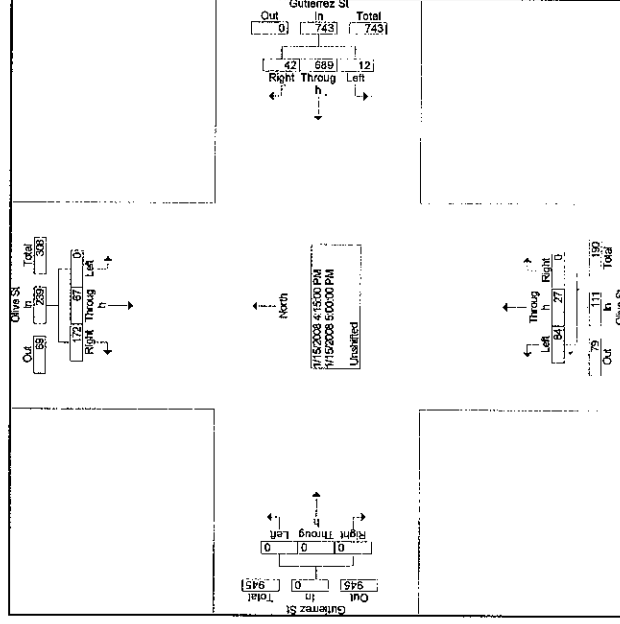
LOS PORTALES CONDOMINIUMS #04072.01														REF: 4PM
INTERSECTION CAPACITY UTILIZATION WORKSHEET														
COUNT DATE: OCTOBER 2006														
TIME PERIOD: P.M. PEAK HOUR														
N/S STREET: GARDEN														
E/W STREET: US 101 NB RAMPS														
CONTROL TYPE: SIGNAL														
TRAFFIC VOLUME SUMMARY														
VOLUMES		NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND
		L	T	R		L	T	R		L	T	R		R
(A) EXISTING:		405	500	0	0	610	644	0	0	0	115	0	210	
(B) PROJECT-ADDED		0	6	0	0	3	0	0	0	0	0	0	0	
(C) CUMULATIVE		453	688	0	0	727	746	0	0	0	139	0	272	
GEOMETRICS														
LANE GEOMETRICS		NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND
		L	T			L	T			L	T			L
TRAFFIC SCENARIOS														
SCENARIO 1 - EXISTING VOLUMES (A)														
SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)														
SCENARIO 3 - CUMULATIVE (C)														
SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)														
LEVEL OF SERVICE CALCULATIONS														
MOVE- MENTS	# OF LANES	SCENARIO VOLUMES								SCENARIO V/C RATIOS				
		1	2	3	4	1	2	3	4	1	2	3	4	
NBL	1	1600	405	405	453	453				0.253	0.253	0.283	0.283	
NBT	2	3200	580	586	688	694				0.181	0.183	0.215	0.217	
NBR	0	0	0	0	0	0				-	-	-	-	
SBL	0	0	0	0	0	0				-	-	-	-	
SBT	2	3200	610	610	727	727				0.191	0.191	0.237	0.237	
SBR (a)	1	1600	489	492	567	560				0.306	0.308	0.354	0.356	
EBL	0	0	0	0	0	0				-	-	-	-	
EBT	0	0	0	0	0	0				-	-	-	-	
EBR	0	0	0	0	0	0				-	-	-	-	
WBL	1	1600	115	115	139	139				0.072	0.072	0.087	0.087	
WBT	0	0	0	0	0	0				-	-	-	-	
WBR (a)	1	1600	107	107	139	139				0.067	0.067	0.087	0.087	
LOST TIME:										0.100	0.100	0.100	0.100	
TOTAL INTERSECTION CAPACITY UTILIZATION:										0.616	0.616	0.697	0.697	
SCENARIO LEVEL OF SERVICE:										B	B	B	B	
NOTES:														
RTOR: (a) 24% (b) 49%														
Printed: 07/26/07														

LOS PORTALES CONDOMINIUMS #04072.01														REF: 5AM
INTERSECTION CAPACITY UTILIZATION WORKSHEET														
COUNT DATE: JULY 2005														
TIME PERIOD: A.M. PEAK HOUR														
N/S STREET: GARDEN														
E/W STREET: US 101 SB RAMPS														
CONTROL TYPE: SIGNAL														
TRAFFIC VOLUME SUMMARY														
VOLUMES		NORTH BOUND		SOUTH BOUND		EAST BOUND		WEST BOUND						
		L	T	L	T	L	T	L	T					
(A) EXISTING:		0	319	52	226	278	0	523	0	350	0	0	0	0
(B) PROJECT-ADDED														
(C) CUMULATIVE														
		361	56	267	315	565		565		362	0	0	0	0
GEOMETRICS														
LANE GEOMETRICS		NORTH BOUND		SOUTH BOUND		EAST BOUND		WEST BOUND						
		T TR		L LTR		L LTR		L LTR						
TRAFFIC SCENARIOS														
SCENARIO 1 - EXISTING VOLUMES (A)														
SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)														
SCENARIO 3 - CUMULATIVE (C)														
SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)														
LEVEL OF SERVICE CALCULATIONS														
MOVE-MENTS		# OF LANES		CAPACITY		SCENARIO VOLUMES				SCENARIO V/C RATIOS				
						1	2	3	4	1	2	3	4	
NBL		0		0		0	0	0	0	-	-	-	-	
NBT		2		3200		319	319	361	361	0.115	0.115	0.129	0.129	
NBR (a)		0		0		49	49	53	53	-	-	-	-	
SBL		2		3200		226	227	267	268	0.071	0.071	0.083	0.084	
SBT		1		1600		278	278	315	315	0.174	0.174	0.197	0.197	
SBR		0		0		0	0	0	0	-	-	-	-	
EBL		0		0		523	524	565	566	-	-	-	-	
EBT		2		3200		0	0	0	0	0.163	0.164	0.177	0.177	
EBR (b)		1		1600		235	235	256	256	0.147	0.147	0.160	0.160	
WBL		0		0		0	0	0	0	-	-	-	-	
WBT		0		0		0	0	0	0	-	-	-	-	
WBR		0		0		0	0	0	0	-	-	-	-	
						LOST TIME								

Start Time	Olive St Southbound			Gutierrez St Westbound			Olive St Northbound			Gutierrez St Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Peak Hour From 07:00 AM to 07:45 AM	0	97	116	14	547	20	29	22	0	0	0	0	845
Volume	0	45.5	54.5	2.4	94.1	3.4	56.9	43.1	0.0	0.0	0.0	0.0	0
Percent	0.0	31	34	65	6	138	8	4	0	0	0	0	223
Volume	0	31	34	65	6	138	8	4	0	0	0	0	0.947
Peak Factor	0	31	34	65	6	138	8	4	0	0	0	0	0.886
High Int. 08:00 AM	0	31	34	65	6	138	8	4	0	0	0	0	0.886
Volume	0	31	34	65	6	138	8	4	0	0	0	0	0.886
Peak Factor	0	31	34	65	6	138	8	4	0	0	0	0	0.886



Start Time	Olive St Southbound			Gutierrez St Westbound			Olive St Northbound			Gutierrez St Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Peak Hour From 12:00 PM to 05:45 PM - Peak 1 of 1	0	67	172	12	589	42	84	27	0	0	0	0	1093
Volume	0	28.0	72.0	1.8	92.7	5.7	75.7	24.3	0.0	0.0	0.0	0.0	0
Percent	0.0	17	48	65	6	178	31	9	0	0	0	0	289
Volume	0	17	48	65	6	178	31	9	0	0	0	0	0.914
Peak Factor	0	21	44	65	6	178	10	9	0	0	0	0	0.914
High Int. 04:45 PM	0	21	44	65	6	178	10	9	0	0	0	0	0.914
Volume	0	21	44	65	6	178	10	9	0	0	0	0	0.914
Peak Factor	0	21	44	65	6	178	10	9	0	0	0	0	0.914



LOS PORTALES CONDOMINIUMS #04072.01														REF 3AM	
INTERSECTION CAPACITY UTILIZATION WORKSHEET															
COUNT DATE: OCTOBER 2006															
TIME PERIOD: A.M. PEAK HOUR															
N/S STREET: CALLE CESAR CHAVEZ															
E/W STREET: GUTIERREZ															
CONTROL TYPE: SIGNAL															
<b>TRAFFIC VOLUME SUMMARY</b>															
VOLUMES		NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND				
		L	T	R	L	T	R	L	T	R	L	T	R		
(A) EXISTING:		62	64	0	0	127	72	0	0	0	44	557	23		
(B) PROJECT-ADDED		7	3	0	0	1	0	0	0	0	1	0	0		
(C) CUMULATIVE		66	66	0	0	134	76	0	0	0	46	554	24		
<b>GEOMETRICS</b>															
LANE GEOMETRICS		NORTH BOUND			SOUTH BOUND			EAST BOUND			WEST BOUND				
		L	T	R	L	T	R	L	T	R	L	T	R		
<b>TRAFFIC SCENARIOS</b>															
SCENARIO 1 - EXISTING VOLUMES (A)															
SCENARIO 2 = EXISTING + PROJECT VOLUMES(A+B)															
SCENARIO 3 = CUMULATIVE(C)															
SCENARIO 4 = CUMULATIVE + PROJECT VOLUMES (B+C)															
<b>LEVEL OF SERVICE CALCULATIONS</b>															
MOVE-MENTS		# OF LANES	CAPACITY			SCENARIO VOLUMES							SCENARIO VIC RATIOS		
			1	2	3	4	1	2	3	4	1	2	3	4	
NBL	1	1600	62	69	66	73	0.039 *	0.043 *	0.041 *	0.046 *					
NBT	1	1600	64	67	66	69	0.040	0.042	0.041	0.043					
NBR	0	0	0	0	0	0	-	-	-	-					
SBL	0	0	0	0	0	0	-	-	-	-					
SBT	1	1600	127	128	134	135	0.111 *	0.112 *	0.118 *	0.118 *					
SBR (A)	0	0	51	51	54	54	-	-	-	-					
EBL	0	0	0	0	0	0	-	-	-	-					
EBT	0	0	0	0	0	0	-	-	-	-					
EBR	0	0	0	0	0	0	-	-	-	-					
WBL	0	0	44	45	46	47	-	-	-	-					
WBT	2	3200	557	557	594	594	0.194 *	0.194 *	0.207 *	0.207 *					
WBR (A)	0	0	20	20	21	21	-	-	-	-					
TOTAL INTERSECTION CAPACITY UTILIZATION:															
SCENARIO LEVEL OF SERVICE:															
LOST TIME:															
0.100 *														0.100 *	
0.444														0.449	
A														A	
0.466														0.471	
A														A	

NOTES:  
RTOR: (a) 29%  
(b) 13%

LOS PORTALES CONDOMINIUMS #04072.01																REF: 3PM			
INTERSECTION CAPACITY UTILIZATION WORKSHEET																			
COUNT DATE: OCTOBER 2006																			
TIME PERIOD: P.M. PEAK HOUR																			
N/S STREET: CALLE CESAR CHAVEZ																			
E/W STREET: GUTIERREZ																			
CONTROL TYPE: SIGNAL																			
TRAFFIC VOLUME SUMMARY																			
VOLUMES		NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND					
		L	T	R	T	L	T	R	T	L	T	R	T	L	T	R	T		
(A) EXISTING:		74	96	0	0	84	85	0	0	0	0	0	0	28	438	37			
(B) PROJECT-ADDED		3	2	0	0	8	0	0	0	0	0	0	0	1	0	0			
(C) CUMULATIVE		83	103	0	0	90	89	0	0	0	0	0	0	29	485	39			
GEOMETRICS																			
LANE GEOMETRICS		NORTH BOUND				SOUTH BOUND				EAST BOUND				WEST BOUND					
		L	T			L	T			L	T			L	T				
SCENARIO 1 - EXISTING VOLUMES (A)																			
SCENARIO 2 - EXISTING + PROJECT VOLUMES (A+B)																			
SCENARIO 3 - CUMULATIVE (C)																			
SCENARIO 4 - CUMULATIVE + PROJECT VOLUMES (B+C)																			
LEVEL OF SERVICE CALCULATIONS																			
MOVE-MENTS		# OF LANES		SCENARIO VOLUMES												SCENARIO VC RATIOS			
		1	2	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NBL	1	1600		74	77	83	86	0.046	0.048	0.037	0.054	0.046	0.048	0.037	0.054	0.046	0.048	0.037	0.054
NBT	1	1600		96	98	103	105	0.060	0.061	0.064	0.066	0.060	0.061	0.064	0.066	0.060	0.061	0.064	0.066
NBR	0	0		0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
SBL	0	0		0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
SBT	1	1600		84	92	90	98	0.088	0.093	0.094	0.099	0.088	0.093	0.094	0.099	0.088	0.093	0.094	0.099
SBR (A)	0	0		57	57	60	60	-	-	-	-	-	-	-	-	-	-	-	-
EBL	0	0		0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
EBT	0	0		0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
EBR	0	0		0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
WBL	0	0		28	29	29	30	-	-	-	-	-	-	-	-	-	-	-	-
WBT	2	3200		438	439	485	485	0.155	0.155	0.171	0.171	0.155	0.155	0.171	0.171	0.155	0.155	0.171	0.171
WBR (B)	0	0		30	30	32	32	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL INTERSECTION CAPACITY UTILIZATION:																			
SCENARIO LEVEL OF SERVICE:																			
LOST TIME:																			
0.100 * 0.100 * 0.100 * 0.100 * 0.100 * 0.100 * 0.100 *																			
0.389 A 0.396 A 0.417 A 0.424 A																			
NOTES:																			
RTOR: (A) 33% (B) 19%																			



## **APPENDIX B**

# **TRAFFIX ANALYSIS WORKSHEETS**

## **EXISTING CONDITIONS**



**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

<b>PROJECT:</b> 535 E Montecito Street "Los Portales" Project		<b>ANALYSIS CONDITION:</b> Existing AM Conditions	
<b>INTERSECTION:</b> Gutierrez Street at Garden Street		<b>DATE OF ANALYSIS:</b> 02/12/08	
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR VOLUME V/C
NBL	2	3200	288 0.090
NBT	1	1600	575 0.359 *
NBR	0		0 0.000
SBL	0		0 0.000 *
SBT	2	3200	387 0.126
SBTR	0		15 0.000
EBL	0		0 0.000 *
EBLT	0		0 0.000
EBTR	0		0 0.000
WBL	1	1600	132 0.083
WBT	1	1600	577 0.361 *
WBR	1	1600	267 0.167
N/S Movements			
E/W Movements			
Rt. Turn Component			
Yellow Clearance			
<b>TOTAL CAPACITY UTILIZATION (ICU)</b>			<b>0.820</b>
<b>LEVEL OF SERVICE (LOS)</b>			<b>D</b>
ICU			
0.100 -	0.800	LOS	
0.601 -	0.700	A	
0.701 -	0.800	B	
0.801 -	0.900	C	
0.901 -	1.000	D	
1.001 -	UP	E	
		F	

Existing AM	Wed Feb 20, 2008 15:46:16	Page 4-1
Existing AM Peak Hour City of Santa Barbara Montecito Condos Restudy		
Level of Service Computation Report		
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)		
*****		
Intersection #3 US-101 NB Ramps and Garden St		
*****		
Cycle (sec):	100	Critical Vol./Cap.(X): 0.555
Loss time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh): xxxxxx
Optimal Cycle:	37	Level of Service: A
*****		
Street Name:	Garden St	US-101 NB Ramps
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Control:	Prot+Permit	Permitted
Rights:	Include	Include
Min. Green:	0 0 0 0 0 2 0 1	0 0 0 0 0 0 0 0
Lanes:	1 0 2 0 0 0 2 0 1	0 1 0 1 0 0 1 0
*****		
Volume Module:		
Base Vol:	198 694 0 0 411 537 0 0	0 119 0 218
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Initial Bse:	198 694 0 0 411 537 0 0	0 119 0 218
Added Vol:	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0
Initial Fut:	198 694 0 0 411 537 0 0	0 119 0 218
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
PHF Volume:	198 694 0 0 411 408 0 0	0 119 0 122
Reduced Vol:	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0
Reduced Vol:	198 694 0 0 411 408 0 0	0 119 0 122
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
FinalVolume:	198 694 0 0 411 408 0 0	0 119 0 122
*****		
Saturation Flow Module:		
Sat/Lane:	1600 1600 1600 1600 1600 1600 1600 1600	1600 1600 1600 1600
Adjustment:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00
Lanes:	1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00	0.00 0.99 0.01 1.00
Final Sat.:	1600 3200 0 0 3200 1600 0 0	0 1580 20 1600
*****		
Capacity Analysis Module:		
Vol/Sat:	0.12 0.22 0.00 0.00 0.13 0.26 0.00 0.00	0.00 0.07 0.00 0.08
Crit Moves:	****	****
*****		



Existing AM Wed Feb 20, 2008 15:46:16 Page 7-1

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Gutierrez St and Calle Cesar Chavez

Cycle (sec): 100 Critical Vol./Cap.(X): 0.444  
Loss Time (sec): 10 (Y+R=0.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 30 Level Of Service: A

Street Name: Calle Cesar Chavez Gutierrez St  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include  
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 1 0 1 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0

Volume Module:

Base Vol:	62	64	0	0	127	72	0	0	0	44	557	23
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	64	0	0	127	72	0	0	0	44	557	23
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserbyVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	64	0	0	127	72	0	0	0	44	557	23
User Adj:	1.00	1.00	1.00	1.00	1.00	0.71	1.00	1.00	1.00	1.00	1.00	0.87
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	64	0	0	127	51	0	0	0	44	557	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	64	0	0	127	51	0	0	0	44	557	20
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	64	0	0	127	51	0	0	0	44	557	20

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.71	0.29	0.00	0.00	0.00	0.14	1.80	0.06
Final Sat:	1600	1600	0	0	1141	459	0	0	0	227	2870	103

Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.03	0.19	0.19
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	***

Impact Analysis Report Level Of Service				
Intersection	Base Del/V/ LOS Veh C	Future Del/V/ LOS Veh C	Change in	
# 1 Haley St and Garden St	B xxxxx 0.654	B xxxxx 0.654	+ 0.000	V/C
# 3 US-101 NB Ramps and Garden St	C xxxxx 0.731	C xxxxx 0.731	+ 0.000	V/C
# 4 US-101 SB Ramps and Garden St	A xxxxx 0.569	A xxxxx 0.569	+ 0.000	V/C
# 5 Gutierrez St and Olive St	C 20.0 0.000	C 20.0 0.000	+ 0.000	D/V
# 6 Gutierrez St and Calle Cesar C	A xxxxx 0.389	A xxxxx 0.389	+ 0.000	V/C

Level Of Service Computation Report									
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)									
*****									
Intersection #1 Haley St and Garden St									
*****									
Cycle (sec):	100	Critical Vol./Cap.(X):	0.654						
Loss Time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh):	xxxxxx						
Optimal Cycle:	45	Level of Service:	B						
*****									
Street Name:	Garden St		South Bound		East Bound		Haley St		
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Movement:	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include
Control:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Rights:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
*****									
Volume Module:									
Base Vol:	0 309 251	41 456	0 19 593	330	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 309 251	41 456	0 19 593	330	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	0 309 251	41 456	0 19 593	330	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
User Adj:	1.00 1.00	0.92 1.00	1.00 1.00	1.00	1.00 1.00	0.85 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	0 309 231	41 456	0 19 593	281	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
FCE Adj:	0 309 231	41 456	0 19 593	281	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	0 309 231	41 456	0 19 593	281	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
*****									
Saturation Flow Module:									
Sat/Lane:	1600 1600	1600 1600	1600 1600	1600	1600 1600	1600 1600	1600 1600	1600 1600	1600 1600
Adjustment:	1.00 1.00	1.00 1.00	1.00 1.00	1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.00 0.57	0.43 0.16	1.84 0.00	0.06	1.94 1.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Final Sat:	0 916	684 264	2936 0	99	3101 1600	0 0	0 0	0 0	0 0
*****									
Capacity Analysis Module:									
Vol/Sat:	0.00 0.34	0.34 0.03	0.16 0.00	0.01	0.19 0.18	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Crit Moves:	****	****	****	****	****	****	****	****	****

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

PROJECT: 535 E Montecito Street "Los Portales" Project			
ANALYSIS CONDITION:		Existing PM Conditions	
INTERSECTION:		Gutierrez Street at Garden Street	
DATE OF ANALYSIS:		02/12/08	
MOVEMENT	LANES	CAPACITY	PM PEAK HOUR VOLUME V/C
NBL	2	3200	0.097 *
NBT	1	1600	0.318
NBR	0		0.000
SBL	0		0.000
SBT	2	3200	0.291 *
SBTR	0		0.000
EBL	0		0.000 *
EBLT	0		0.000
EBTR	0		0.000
WBL	1	1600	0.063
WBT	1	1600	0.304 *
WBR	1	1600	0.198
N/S Movements			
E/W Movements			
Rt. Turn Component			
Yellow Clearance			
TOTAL CAPACITY UTILIZATION (ICU)			0.792
LEVEL OF SERVICE (LOS)			C
ICU			LOS
0.100 -			0.600 A
0.601 -			0.700 B
0.701 -			0.800 C
0.801 -			0.900 D
0.901 -			1.000 E
1.001 -			UP F

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Level of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #3 US-101 NB Ramps and Garden St  
\*\*\*\*\*  
Cycle (sec): 100 Critical Vol./Cap.(X): 0.731  
Loss Time (sec): 10 (Y+R=0.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 54 Level of Service: C  
\*\*\*\*\*  
Street Name: Garden St US-101 NB Ramps  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Prot+Permit Permitted Permitted Permitted Permitted  
Rights: Include Include Include Include Include Include  
Min. Green: 0 0 0 0 0 2 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
Lanes: 1 0 2 0 0 0 0 2 0 1 0 0 0 0 0 0 0 1 0 1 0 0  
\*\*\*\*\*  
Volume Module: 405 580 0 0 610 644 0 0 0 115 0 210  
Base Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 405 580 0 0 610 644 0 0 0 115 0 210  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 405 580 0 0 610 644 0 0 0 115 0 210  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 405 580 0 0 610 489 0 0 0 115 0 107  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 405 580 0 0 610 489 0 0 0 115 0 107  
\*\*\*\*\*  
Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.00 0.00 0.00 2.00 1.00 0.00 0.00 0.00 0.00 0.04 0.96  
Final Sat.: 1600 3200 0 0 3200 1600 0 0 0 1600 57 1543  
\*\*\*\*\*  
Capacity Analysis Module:  
Vol/Sat: 0.25 0.18 0.00 0.00 0.19 0.31 0.00 0.00 0.00 0.07 0.00 0.07  
Crit Moves: \*\*\*\*  
\*\*\*\*\*



Level of Service Computation Report									
ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)									
*****									
Intersection #4 US-101 SB Ramps and Garden St									
Cycle (sec):	100	Critical Vol./Cap.(X):	0.569						
Loss time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh):	xxxxxx						
Optimal Cycle:	38	Level of Service:	A						
*****									
Street Name:	Garden St	US-101 SB Ramps							
Approach:	North Bound	South Bound	East Bound	West Bound					
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Protected	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include	Include	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	0 0 1 1 0	2 0 1 0 0	1 0 1 0 1	0 0 0 0 0					
*****									
Volume Module:									
Base Vol:	0 600	87 453 328	0 379	0 278	0 0	0 0	0 0	0 0	0 0
Growth Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Bse:	0 600	87 453 328	0 379	0 278	0 0	0 0	0 0	0 0	0 0
Added Vol:	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
PasserByVol:	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Initial Fut:	0 600	87 453 328	0 379	0 278	0 0	0 0	0 0	0 0	0 0
User Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	0 600	69 453 328	0 379	0 111	0 0	0 0	0 0	0 0	0 0
Reduced Vol:	0 0	0 0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
PCE Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
FinalVolume:	0 600	69 453 328	0 379	0 111	0 0	0 0	0 0	0 0	0 0
*****									
Saturation Flow Module:									
Sat/Lane:	1600 1600	1600 1600 1600	1600 1600	1600 1600	1600 1600	1600 1600	1600 1600	1600 1600	1600 1600
Adjustment:	1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Lanes:	0.00 1.79	0.21 2.00 1.00	0.00 2.00 0.00	1.00 0.00 0.00	0.00 0.00	1.00 0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Final Sat:	0 2871	329 3200 1600	0 3200	0 1600	0 0	0 0	0 0	0 0	0 0
*****									
Capacity Analysis Module:									
Vol/Sat:	0.00 0.21	0.21 0.14 0.21	0.00 0.12 0.00	0.07 0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
Crit Moves:	****	****	****	****	****	****	****	****	****
*****									

Level Of Service Computation Report									
2000 HCM Unsignalized Method (Future Volume Alternative)									
*****									
Intersection #5 Gutierrez St and Olive St									
Average Delay (sec/veh): 5.8 Worst Case Level Of Service: C[ 20.0]									
*****									
Street Name: Olive St Gutierrez St									
Approach: North Bound South Bound East Bound West Bound									
Movement: L - T - R L - T - R L - T - R L - T - R									
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled									
Rights: Include Include Include Include									
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0									
*****									
Volume Module:									
Base Vol: 84 27 0 0 67 172 0 0 0 12 689 42									
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00									
Initial Bse: 84 27 0 0 67 172 0 0 0 12 689 42									
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0									
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0									
Initial Fut: 84 27 0 0 67 172 0 0 0 12 689 42									
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00									
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00									
PHF Volume: 84 27 0 0 67 172 0 0 0 12 689 42									
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0									
FinalVolume: 84 27 0 0 67 172 0 0 0 12 689 42									
*****									
Critical Gap Module:									
Critical Gap: 7.1 6.5 xxxxxx xxxxxx 6.5 6.2 xxxxxx xxxxxx xxxxxx 4.1 xxxxx xxxxxx									
FollowUpTim: 3.5 4.0 xxxxxx xxxxxx 4.0 3.3 xxxxxx xxxxxx xxxxxx 2.2 xxxxx xxxxxx									
*****									
Capacity Module:									
Conflict Vol: 402 755 xxxxxx xxxxx 734 366 xxxxx xxxxx xxxxxx 0 xxxxx xxxxxx									
Potent Cap.: 562 340 xxxxxx xxxxx 350 684 xxxxx xxxxx xxxxxx 900 xxxxx xxxxxx									
Move Cap.: 354 336 xxxxxx xxxxx 345 684 xxxxx xxxxx xxxxxx 900 xxxxx xxxxxx									
Volume/Cap.: 0.24 0.08 xxxxx xxxxxx 0.19 0.25 xxxxx xxxxx xxxxxx 0.01 xxxxx xxxxx									
*****									
Level Of Service Module:									
2Way95thQ: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxxx									
Control Del: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 9.1 xxxxx xxxxxx									
LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT A * * *									
Movement: Shared Cap.: 350 xxxxx xxxxx xxxxx 536 xxxxx xxxxx xxxxxx LT - LTR - RT									
Shared Queue: 1.3 xxxxx xxxxx xxxxx 2.3 xxxxx xxxxx xxxxxx 0.0 xxxxx xxxxx									
Shrd ConDel: 20.0 xxxxx xxxxx xxxxx 17.0 xxxxx xxxxx xxxxxx 9.1 xxxxx xxxxx									
Shared LOS: C * * * C * * * A * *									
ApproachDel: 20.0 17.0 xxxxxx xxxxxx * xxxxxx * xxxxxx * xxxxxx									
ApproachLOS: C C C C C									
*****									

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Existing PM Peak Hour  
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Level Of Service Computation Report  
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Gutierrez St and Calle Cesar Chavez

Cycle (sec): 100      Critical Vol./Cap.(X): 0.389  
Loss Time (sec): 10 (Y-R=0.0 sec)      Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 28      Level Of Service: A

Street Name: Calle Cesar Chavez      Gutierrez St  
Approach: North Bound      South Bound      East Bound      West Bound  
Movement: L - T - R      L - T - R      L - T - R      L - T - R

Control:	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	0	0	0	0
Lanes:	1	0	0	0

Volume Module:

Base Vol:	74	96	0	0	84	85	0	0	0	28	438	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	96	0	0	84	85	0	0	0	28	438	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	96	0	0	84	85	0	0	0	28	438	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	96	0	0	84	85	0	0	0	28	438	30
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	96	0	0	84	85	0	0	0	28	438	30

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.60	0.40	0.00	0.00	0.00	0.11	1.77	0.12
Final Sat:	1600	1600	0	0	954	646	0	0	0	181	2826	193

Capacity Analysis Module:

Vol/Sat:	0.05	0.06	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.02	0.15	0.15
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****

# **EXISTING WITH PROJECT CONDITIONS**

Impact Analysis Report Level Of Service				
Intersection	Base Del/ LOS Veh C	Future Del/ LOS Veh C	Change in	
# 1 Haley St and Garden St	B xxxxx 0.676	B xxxxx 0.676	+ 0.000 V/C	
# 3 US-101 NB Ramps and Garden St	A xxxxx 0.558	A xxxxx 0.558	+ 0.000 V/C	
# 4 US-101 SB Ramps and Garden St	A xxxxx 0.450	A xxxxx 0.450	+ 0.000 V/C	
# 5 Gutierrez St and Olive St	C 15.7 0.000	C 15.7 0.000	+ 0.000 D/V	
# 6 Gutierrez St and Calle Cesar C	A xxxxx 0.450	A xxxxx 0.450	+ 0.000 V/C	

Level of Service Computation Report ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)																
*****																
Intersection #1 Haley St and Garden St																
Cycle (sec):	100	Critical Vol./Cap.(X): 0.676														
Loss Time (sec):	10 (Ytr=0.0 sec)	Average Delay (sec/veh): xxxxxx														
Optimal Cycle:	47	Level of Service: B														
*****																
Street Name:	Garden St	North Bound	South Bound	East Bound	Haley St	West Bound										
Approach:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R										
Movement:	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include	Permitted Include										
Control:	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0															
Rights:	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0															
Min. Green:	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0															
Lanes:	0 0 0 1 0 0 1 1 0 0 0 1 1 0 1 0 0 0 0 0															
*****																
Volume Module:																
Base Vol:	0 316 380 38 325 0 20 392 168 0 0 0															
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
Initial Bse:	0 316 380 38 325 0 20 392 168 0 0 0															
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
Initial Fut:	0 316 380 38 325 0 20 392 168 0 0 0															
User Adj:	1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
PHF Volume:	0 316 361 38 325 0 20 392 155 0 0 0															
Reduced Vol:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0															
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
FinalVolume:	0 316 361 38 325 0 20 392 155 0 0 0															
*****																
Saturation Flow Module:																
Sat/Lane:	1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600															
Adj Sat:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00															
Lanes:	0.00 0.47 0.53 0.21 1.79 0.00 0.10 1.90 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00															
Final Sat:	0 747 853 335 2865 0 155 3045 1600 0 0 0															
*****																
Capacity Analysis Module:																
Vol/Sat:	0.00 0.42 0.42 0.02 0.11 0.00 0.01 0.13 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00															
Crit Moves:	0.00 0.42 0.42 0.02 0.11 0.00 0.01 0.13 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.00															
*****																

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

<b>PROJECT:</b> 535 E. Montecito Street "Los Portales" Project			
<b>ANALYSIS CONDITION:</b> Existing With Project AM Conditions			
<b>INTERSECTION:</b> Gutierrez Street at Garden Street			
<b>DATE OF ANALYSIS:</b> 02/12/08			
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR VOLUME V/C
NBL	2	3200	288 0.090
NBT	1	1600	577 0.361 *
NBR	0		0 0.000
SBL	0		0 0.000 *
SBT	2	3200	387 0.126
SBTR	0		15 0.000
EBL	0		0 0.000 *
EBLT	0		0 0.000
EBTR	0		0 0.000
WBL	1	1600	133 0.083
WBT	1	1600	585 0.366 *
WBR	1	1600	270 0.169
N/S Movements			0.361
E/W Movements			0.366
Rt. Turn Component			0.000
Yellow Clearance			0.100
<b>TOTAL CAPACITY/UTILIZATION (ICU)</b>			<b>0.826</b>
<b>LEVEL OF SERVICE (LOS)</b>			<b>D</b>
ICU		LOS	
0.100 -	0.600	A	
0.601 -	0.700	B	
0.701 -	0.800	C	
0.801 -	0.900	D	
0.901 -	1.000	E	
1.001 -	UP	F	

Existing With Project AM		Wed Feb 20, 2008 15:46:46				Page 4-1	
-----							
Level of Service Computation Report							
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)							
*****							
Intersection #3 US-101 NB Ramps and Garden St							
*****							
Cycle (sec):	100	Critical Vol./Cap.(X):	0.558				
Loss Time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh):	xxxxxx				
Optimal Cycle:	37	Level Of Service:	A				
*****							
Street Name:	Garden St	US-101 NB Ramps					
Approach:	North Bound	South Bound	East Bound	West Bound			
Movement:	L _ T _ R	L _ T _ R	L _ T _ R	L _ T _ R			
Control:	Prot+Permit	Permitted	Permitted	Permitted			
Rights:	Include	Include	Include	Include			
Min. Green:	0 0 0 0 0	0 0 2 0 1	0 0 0 0 0	0 0 0 0 0			
Lanes:	1 0 2 0 0	0 0 2 0 1	0 0 0 0 0	0 1 0 1 0			
-----							
Volume Module:							
Base Vol:	198 696	0 0 412 543	0 0 0 0	119 0 218			
Growth Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00			
Initial Bse:	198 696	0 0 412 543	0 0 0 0	119 0 218			
Added Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0			
PasserByVol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0			
Initial Fut:	198 696	0 0 412 543	0 0 0 0	119 0 218			
User Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00			
PHF Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00			
PHF Volume:	198 696	0 0 412 413	0 0 0 0	119 0 122			
Reduced Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0			
Reduced Vol:	198 696	0 0 412 413	0 0 0 0	119 0 122			
PCE Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00			
MLF Adj:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00			
FinalVolume:	198 696	0 0 412 413	0 0 0 0	119 0 122			
-----							
Saturation Flow Module:							
Sat/Lane:	1600 1600	1600 1600 1600	1600 1600 1600	1600 1600			
Adjustment:	1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00			
Lanes:	1.00 2.00	0.00 2.00 1.00	0.00 0.00 0.00	0.99 0.01 1.00			
Final Sat:	1600 3200	0 0 3200 1600	0 0 0 0	1580 20 1600			
-----							
Capacity Analysis Module:							
Vol/Sat:	0.12 0.22	0.00 0.00 0.13 0.26	0.00 0.00 0.00 0.07	0.00 0.08			
Crit Moves:	****	*****	*****	*****			
-----							

Level of Service Computation Report  
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #4 US-101 SB Ramps and Garden St  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.450  
 Loss Time (sec): 10 (Y+R=0.0 sec) Average Delay (sec/veh): xxxxx  
 Optimal Cycle: 31 Level of Service: A  
 \*\*\*\*\*  
 Street Name: Garden St US-101 SB Ramps  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Permitted Protected Permitted Permitted  
 Rights: Include Include Include Include  
 Min. Green: 0 0 1 1 0 2 0 1 0 0 1 0 1 0 0 0 0 0  
 Lanes: 0 0 1 1 0 2 0 1 0 0 1 0 1 0 0 0 0 0  
 Volume Module:  
 Base Vol: 0 318 52 227 278 0 525 0 350 0 0 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 318 52 227 278 0 525 0 350 0 0 0  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 318 52 227 278 0 525 0 350 0 0 0  
 User Adj: 1.00 1.00 0.94 1.00 1.00 1.00 1.00 1.00 0.67 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 0 318 49 227 278 0 525 0 235 0 0 0  
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Volume: 0 318 49 227 278 0 525 0 235 0 0 0  
 Saturation Flow Module:  
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Lanes: 0.00 1.73 0.27 2.00 1.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00  
 Final Sat.: 0 2774 426 3200 1600 0 3200 0 1600 0 0 0  
 Capacity Analysis Module:  
 Vol/Sat: 0.00 0.11 0.11 0.07 0.17 0.00 0.16 0.00 0.15 0.00 0.00 0.00  
 Cmt Moves: \*\*\*\*  
 \*\*\*\*\*  
 Level of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #5 Gutierrez St and Olive St  
 Average Delay (sec/veh): 5.1 Worst Case Level of Service: C [15.7]  
 \*\*\*\*\*  
 Street Name: Olive St Gutierrez St  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Include Include Include  
 Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0  
 Volume Module:  
 Base Vol: 33 24 0 0 98 116 0 0 0 14 555 20  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 33 24 0 0 98 116 0 0 0 14 555 20  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 33 24 0 0 98 116 0 0 0 14 555 20  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 33 24 0 0 98 116 0 0 0 14 555 20  
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Final Volume: 33 24 0 0 98 116 0 0 0 14 555 20  
 Critical Gap Module:  
 Critical Gap: 7.1 6.5 xxxxx xxxxx 6.5 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx  
 FollowUpTm: 3.5 4.0 xxxxx xxxxx 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx  
 Capacity Module:  
 Conflict Vol: 355 603 xxxxx xxxxx 593 288 xxxxx xxxxx xxxxx 0 xxxxx xxxxx  
 Potent Cap.: 604 416 xxxxx xxxxx 421 756 xxxxx xxxxx xxxxx 900 xxxxx xxxxx  
 Move Cap.: 414 409 xxxxx xxxxx 415 756 xxxxx xxxxx xxxxx 900 xxxxx xxxxx  
 Volume/Cap: 0.08 0.06 xxxxx xxxxx 0.24 0.15 xxxxx xxxxx xxxxx 0.02 xxxxx xxxxx  
 Level of Service Module:  
 2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx  
 Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx  
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
 Shared Cap.: 412 xxxxx xxxxx xxxxx xxxxx 549 xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx  
 Shared Queue: 0.5 xxxxx xxxxx xxxxx xxxxx 1.8 xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx  
 Shrd ConDel: 15.1 xxxxx xxxxx xxxxx xxxxx 15.7 xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx  
 Shared LOS: C \* \* \* \* \* C \* \* \* \* \* A \* \* \* \* \*  
 ApproachDel: 15.1 C 15.7 C xxxxx  
 ApproachLOS: C C  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

	Level Of Service	Computation Report
ICU 1	(Loss as Cycle Length %)	Method (Future Volume Alternative)

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Gutierrez St and Calle Cesar Chavez

一、二、三、四、五、六、七、八、九、十、十一、十二、十三、十四、十五、十六、十七、十八、十九、二十、二十一、二十二、二十三、二十四、二十五、二十六、二十七、二十八、二十九、三十、三十一、三十二、三十三、三十四、三十五、三十六、三十七、三十八、三十九、四十、四十一、四十二、四十三、四十四、四十五、四十六、四十七、四十八、四十九、五十、五十一、五十二、五十三、五十四、五十五、五十六、五十七、五十八、五十九、六十、六十一、六十二、六十三、六十四、六十五、六十六、六十七、六十八、六十九、七十、七十一、七十二、七十三、七十四、七十五、七十六、七十七、七十八、七十九、八十、八十一、八十二、八十三、八十四、八十五、八十六、八十七、八十八、八十九、九十、九十一、九十二、九十三、九十四、九十五、九十六、九十七、九十八、九十九、一百。

Cycle (sec):	100	Critical Vol./Cap. (X):	0.450
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Loss Time (sec):	10 {Y+R=0.0 sec}	Average Delay (sec/veh):	xxxxxx
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Optimal Cycle:	31	Level Of Service:	A
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[illegible]

Street Name:	Calle Cesar Chavez	Gutierrez St
Approach:	North Bound	South Bound
	East Bound	West Bound

approach:  
 Movement:  $L - T - R$      $L - T - R$      $L - T - R$      $L - T - R$

[illegible]

Control:	Permitted	Permitted	Permitted
	Permitted	Permitted	Permitted

	Include	Include	Include	Include
Rights:	Include	Include	Include	Include
Rights:	Include	Include	Include	Include

[illegible]

Notes:

Volume Module:

Base Vol:	70	66	0	0	129	72	0	0	44	557	23
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Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse:	70	66	0	0	129	72	0	0	44	557	23
Initial Bse:	70	66	0	0	129	72	0	0	44	557	23

Added Vol: \_\_\_\_\_  
PasserByVol: \_\_\_\_\_

Passelbyvot:	0	0	0	0	0	0	0
Initial Fut:	70	66	0	129	72	0	44
							557
							23

User Adj:	1.00	1.00	1.00	1.00	0.71	1.00	1.00	1.00	1.00	1.00	0.87
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PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 70 66 0 0 129 51 0 0 44 557 20

[illegible][illegible][illegible]

FinalVolume:	70	66	0	0	129	51	0	0	0	44	557	20
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Saturation Flow Module:

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Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100																																																																																																																																																																																																																																				
1990	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339

### Capacity Analysis Module:

Vol/Sat:	0.04	0.04	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.03	0.19	0.19
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THE NOVELS: \* \* \* \* \*

[illegible]

Impact Analysis Report Level Of Service				
Intersection	Base Del/ V/ LOS Veh C	Future Del/ V/ LOS Veh C	Change in	
# 1 Haley St and Garden St	B xxxxx 0.667	B xxxxx 0.667	+ 0.000 V/C	
# 3 US-101 NB Ramps and Garden St	C xxxxx 0.732	C xxxxx 0.732	+ 0.000 V/C	
# 4 US-101 SB Ramps and Garden St	A xxxxx 0.571	A xxxxx 0.571	+ 0.000 V/C	
# 5 Gutierrez St and Olive St	C 20.1 0.000	C 20.1 0.000	+ 0.000 D/V	
# 6 Gutierrez St and Calle Cesar C	A xxxxx 0.396	A xxxxx 0.396	+ 0.000 V/C	

Level Of Service Computation Report												
ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)												
*****												
Intersection #1 Haley St and Garden St												
Cycle (sec):	100	Critical Vol./Cap. (X):	0.667									
Loss Time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh):	xxxxxx									
Optimal Cycle:	46	Level Of Service:	B									
*****												
Street Name:	Garden St		Haley St									
Approach:	North Bound	South Bound	East Bound	West Bound								
Movement:	L - T - R	L - T - R	L - T - R	L - T - R								
Control:	Permitted	Permitted	Permitted	Permitted								
Rights:	Include	Include	Include	Include								
Min. Green:	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0								
Lanes:	0 0 0 1	0 1 0 0	0 1 0 1	0 0 0 0								
*****												
Volume Module:												
Base Vol:	0 310 268 44 455	0 19 595 330	0 0 0 0									
Growth Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00									
Initial Bse:	0 310 268 44 455	0 19 595 330	0 0 0 0									
Added Vol:	0 0 0 0	0 0 0 0	0 0 0 0									
PasserByVol:	0 0 0 0	0 0 0 0	0 0 0 0									
Initial Fut:	0 310 268 44 455	0 19 595 330	0 0 0 0									
User Adj:	1.00 1.00 0.92 1.00	1.00 1.00 0.85 1.00	1.00 1.00 1.00 1.00									
PHF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00									
PHF Volume:	0 310 247 44 455	0 19 595 281	0 0 0 0									
Reduced Vol:	0 0 0 0	0 0 0 0	0 0 0 0									
Reduced Vol:	0 310 247 44 455	0 19 595 281	0 0 0 0									
PCE Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00									
MLF Adj:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00									
Final Volume:	0 310 247 44 455	0 19 595 281	0 0 0 0									
*****												
Saturation Flow Module:												
Sat/Lane:	1600 1600	1600 1600	1600 1600	1600 1600								
Adjustment:	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00								
Lanes:	0.00 0.56 0.44 0.18	0.06 1.94 1.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00								
Final Sat.:	0 891 709 282 2918	0 99 3101 1600	0 0 0 0									
*****												
Capacity Analysis Module:												
Vol/Sat:	0.00 0.35 0.35 0.03	0.00 0.01 0.19 0.18	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00								
Crit Moves:	****	****	****	****								
*****												



**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

<b>PROJECT:</b> 535 E. Montecito Street, Los Portales Project			
<b>ANALYSIS CONDITION:</b> Existing With Project PM Conditions			
<b>INTERSECTION:</b>	Gutierrez Street at Garden Street		
<b>DATE OF ANALYSIS:</b>	02/12/08		
		<b>PM PEAK HOUR</b>	<b>V/C</b>
<b>MOVEMENT</b>	<b>LANES</b>	<b>CAPACITY</b>	<b>VOLUME</b>
NBL	2	3200	309
NBT	1	1600	515
NBR	0		0
SBL	0		0.000
SBT	2	3200	885
SBTR	0		46
EBL	0		0.000 *
EBLT	0		0.000 *
EBTR	0		0.000
WBL	1	1600	101
WBT	1	1600	491
WBR	1	1600	317
N/S Movements			0.388
E/W Movements			0.307
Rt. Turn Component			0.000
Yellow Clearance			0.100
<b>TOTAL CAPACITY UTILIZATION (ICU)</b>			<b>0.794</b>
<b>LEVEL OF SERVICE (LOS)</b>			<b>C</b>
		<b>ICU</b>	<b>LOS</b>
	0.100 -	0.600	A
	0.601 -	0.700	B
	0.701 -	0.800	C
	0.801 -	0.900	D
	0.901 -	1.000	E
	1.001 -	UP	F

Existing With Project PM										Wed Feb 20, 2008 15:46:53										Page 4-1																																							
Level of Service Computation Report																																																											
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)																																																											
*****																																																											
Intersection #3 US-101 NB Ramps and Garden St																																																											
*****																																																											
Cycle (sec):										100										Critical Vol./Cap.(X):										0.732																													
Loss Time (sec):										10 (Y+R=0.0 sec)										Average Delay (Sec/Veh):										xxxxxx																													
Optimal Cycle:										54										Level Of Service:										C																													
*****																																																											
Street Name:										Garden St										US-101 NB Ramps										*****																													
Approach:										North Bound										South Bound										East Bound										West Bound																			
Movement:										L - T - R										L - T - R										L - T - R										L - T - R																			
Control:										Prot+Permit										Permitted										Permitted										Permitted																			
Rights:										Include										Include										Include										Include																			
Min. Green:										0 0 0 0										0 0 2 0 1										0 0 0 0 0										0 0 0 0 0																			
Lanes:										1 0 2 0 0										0 0 2 0 1										0 0 0 0 0										0 1 0 1 0																			
*****																																																											
Volume Module:																																																											
Base Vol:										405 586										0										0 610 647										0 0 0										0 115 0 211									
Growth Adj:										1.00 1.00										1.00										1.00 1.00 1.00										1.00 1.00 1.00										1.00 1.00 1.00									
Initial Bse:										405 586										0										0 610 647										0 0 0										0 115 0 211									
Added Vol:										0										0										0 0 0										0 0 0										0 0 0									
PasserByVol:										0										0										0 0 0										0 0 0										0 0 0									
Initial Fut:										405 586										0										0 610 647										0 0 0										0 115 0 211									
User Adj:										1.00 1.00										1.00										1.00 1.00 0.76										1.00 1.00 1.00										1.00 1.00 0.51									
PHF Adj:										1.00 1.00										1.00										1.00 1.00 1.00										1.00 1.00 1.00										1.00 1.00 1.00									
PHF Volume:										405 586										0										0 610 492										0 0 0										0 115 0 108									
Reduced Vol:										0										0										0 0 0										0 0 0										0 0 0									
Reduced Vol:										405 586										0										0 610 492										0 0 0										0 115 0 108									
PCE Adj:										1.00 1.00										1.00										1.00 1.00 1.00										1.00 1.00 1.00										1.00 1.00 1.00									
MLF Adj:										1.00 1.00										1.00										1.00 1.00 1.00										1.00 1.00 1.00										1.00 1.00 1.00									
Final Volume:										405 586										0										0 610 492										0 0 0										0 115 0 108									
*****																																																											
Saturation Flow Module:																																																											
Sat/Lane:										1600 1600										1600										1600 1600 1600										1600 1600 1600																			
Adjustment:										1.00 1.00										1.00										1.00 1.00 1.00										1.00 1.00 1.00																			
Lanes:										1.00 2.00										0.00										0.00 2.00 1.00										0.00 1.00 0.03																			
Final Sat:										1600 3200										0										0 3200 1600										0 0 1600 53 1547																			
*****																																																											
Capacity Analysis Module:																																																											
Vol/Sat:										0.25 0.18										0.00										0.00 0.19										0.31										0.00 0.00 0.00 0.07 0.00 0.07									
Crit Moves:										****										****										****										****																			
*****																																																											



Existing With Project PM    Wed Feb 20, 2008 15:46:53    Page 7-1

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Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #6 Gutierrez St and Calle Cesar Chavez

Cycle (sec): 100    Critical Vol./Cap.(X): 0.396

Loss Time (sec): 10 (Y+R=0.0 sec)    Average Delay (sec/veh): xxxxxx

Optimal Cycle: 28    Level Of Service: A

\*\*\*\*\*

Street Name: Calle Cesar Chavez    Gutierrez St

Approach: North Bound    South Bound    East Bound    West Bound

Movement: L - T - R    L - T - R    L - T - R    L - T - R

Control: Permitted    Permitted    Permitted    Permitted

Rights: Include    Include    Include    Include

Min. Green: 0    0    0    0    0    0    0    0    0    0    0    0

Lanes: 1    0    1    0    0    0    1    0    0    0    0    0    0    1    0    1    0

\*\*\*\*\*

Volume Module:

Base Vol:	77	96	0	0	92	85	0	0	0	0	27	438	37
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	77	96	0	0	92	85	0	0	0	0	27	438	37
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	96	0	0	92	85	0	0	0	0	27	438	37
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	77	96	0	0	92	57	0	0	0	0	27	438	30
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	77	96	0	0	92	57	0	0	0	0	27	438	30

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.00	0.00	0.00	0.62	0.38	0.00	0.00	0.00	0.00	0.11	1.77	0.12
Final Sat:	1600	1600	0	0	988	612	0	0	0	0	175	2832	194

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat:	0.05	0.06	0.00	0.00	0.09	0.09	0.00	0.00	0.00	0.00	0.02	0.15	0.15
Crit Moves:	***	***			***	***					***	***	***

\*\*\*\*\*

# **FUTURE BASE CONDITIONS**

Future Base AM				Wed Feb 20, 2008 15:47:02				Page 3-1			
Impact Analysis Report											
Level Of Service											
Intersection		Base Del/ V/ LOS Veh C		Future Del/ V/ LOS Veh C		Change in		ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)			
#	1 Haley St and Garden St	C xxxxx	0.761	C xxxxx	0.761	C xxxxx	0.761	*****			
#	3 US-101 NB Ramps and Garden St	B xxxxx	0.618	B xxxxx	0.618	B xxxxx	0.618	*****			
#	4 US-101 SB Ramps and Garden St	A xxxxx	0.510	A xxxxx	0.510	A xxxxx	0.510	*****			
#	5 Gutierrez St and Olive St	C 15.7	0.000	C 15.7	0.000	C 15.7	0.000	*****			
#	6 Gutierrez St and Calle Cesar C	A xxxxx	0.480	A xxxxx	0.480	A xxxxx	0.480	*****			
								Level Of Service Computation Report			
								Intersection #1 Haley St and Garden St			
								Cycle (sec): 100 Critical Vol./Cap.(X): 0.761			
								Loss Time (sec): 10 (Y+R=0.0 sec) Average Delay (sec/veh): xxxxxx			
								Optimal Cycle: 59 Level Of Service: C			
								*****			
								Street Name: Garden St Haley St			
								Approach: North Bound South Bound East Bound West Bound			
								Movement: L - T - R L - T - R L - T - R L - T - R			
								Control: Permitted Permitted Permitted Permitted			
								Rights: Include Include Include Include			
								Min. Green: 0 0 0 1 0 0 0 0 0 1 0 1 0 0 0 0			
								Lanes: 0 0 0 1 0 0 1 1 0 0 0 0 1 0 1 0			
								*****			
								Volume Module:			
								Base Vol: 0 369 436 47 403 0 21 435 222 0 0 0			
								Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00			
								Initial Bse: 0 369 436 47 403 0 21 435 222 0 0 0			
								Added Vol: 0 0 0 0 0 0 0 0 0 0 0			
								PasserByVol: 0 0 0 0 0 0 0 0 0 0 0			
								Initial Fur: 0 369 436 47 403 0 21 435 222 0 0 0			
								User Adj: 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00			
								PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00			
								PHF Volume: 0 369 414 47 403 0 21 435 204 0 0 0			
								Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0			
								PCE Adj: 0 369 414 47 403 0 21 435 204 0 0 0			
								MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00			
								FinalVolume: 0 369 414 47 403 0 21 435 204 0 0 0			
								*****			
								Saturation Flow Module:			
								Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600			
								Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00			
								Lanes: 0.00 0.47 0.53 0.21 1.79 0.00 0.09 1.91 1.00 0.00 0.00			
								Final Sat.: 0 754 846 334 2866 0 147 3053 1600 0 0			
								*****			
								Capacity Analysis Module:			
								Vol/Sat: 0.00 0.49 0.49 0.03 0.14 0.00 0.01 0.14 0.13 0.00 0.00			
								Crit Moves: ****			
								*****			

PROJECT:			535.E. Montecito Street "Los Portales" Project		
ANALYSIS CONDITION:			Future Base AM Conditions		
INTERSECTION:			Gutierrez Street at Garden Street		
DATE OF ANALYSIS:			02/12/08		
MOVEMENT	LANES	CAPACITY	AM PEAK HOUR		
			VOLUME	V/C	
NBL	2	3200	323	0.101	
NBT	1	1600	679	0.424 *	
NBR	0		0	0.000	
SBL	0		0	0.000 *	
SBT	2	3200	511	0.165	
SBTR	0		16	0.000	
EBL	1	1600	0	0.000 *	
EBLT	1	1600	0	0.000	
EBTR	1	1600	0	0.000	
WBL	1	1600	125	0.078	
WBT	1	1600	562	0.351 *	
WBR	1	1600	292	0.183	
N/S Movements			0.424		
E/W Movements			0.351		
Rt. Turn Component			0.000		
Yellow Clearance			0.100		
TOTAL CAPACITY UTILIZATION (ICU)					0.876
LEVEL OF SERVICE (LOS)					D
ICU			LOS		
0.100 -			A		
0.601 -			B		
0.701 -			C		
0.801 -			D		
0.901 -			E		
1.001 -			F		
1.001 -			UP		

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Future Base AM Wed Feb 20, 2008 15:47:02 Page 5-1

Level Of Service Computation Report  
 ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #4 US-101 SB Ramps and Garden St  
 \*\*\*\*\*  
 Cycle (sec): 100 Critical Vol./Cap.(X): 0.510  
 Loss Time (sec): 10 (Y+R=0.0 sec) Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 34 Level Of Service: A  
 \*\*\*\*\*  
 Street Name: Garden St US-101 SB Ramps  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Permitted Protected Permitted Permitted Permitted  
 Rights: Include Include Include Include Include  
 Min. Green: 0 0 1 0 0 2 0 1 0 0 0 1 0 1 0 0 0 0 0  
 Lanes: 0 0 1 1 0 2 0 1 0 0 0 1 0 1 0 0 0 0 0  
 \*\*\*\*\*  
 Volume Module:  
 Base Vol: 0 382 58 288 334 0 586 0 398 0 0 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 382 58 288 334 0 586 0 398 0 0 0  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 382 58 288 334 0 586 0 398 0 0 0  
 User Adj: 1.00 1.00 0.94 1.00 1.00 1.00 1.00 1.00 0.67 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 0 382 55 288 334 0 586 0 267 0 0 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 0 382 55 288 334 0 586 0 267 0 0 0  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Volume: 0 382 55 288 334 0 586 0 267 0 0 0  
 \*\*\*\*\*  
 Saturation Flow Module:  
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Adj: 0.00 1.75 0.25 2.00 1.00 0.00 2.00 0.00 1.00 0.00 0.00 0.00  
 Lanes: 0 2800 400 3200 1600 0 3200 0 1600 0 0 0  
 Final Sat: 0 2800 400 3200 1600 0 3200 0 1600 0 0 0  
 \*\*\*\*\*  
 Capacity Analysis Module:  
 Vol/Sat: 0.00 0.14 0.14 0.09 0.21 0.00 0.18 0.00 0.17 0.00 0.00 0.00  
 Crit Moves: \*\*\*\*\*  
 \*\*\*\*\*

Future Base AM Wed Feb 20, 2008 15:47:02 Page 6-1

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*\*  
 Intersection #5 Gutierrez St and Olive St  
 \*\*\*\*\*  
 Average Delay (sec/veh): 5.0 Worst Case Level Of Service: C [15.7]  
 \*\*\*\*\*  
 Street Name: Olive St Gutierrez St  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 Control: Stop Sign Stop Sign Stop Sign Stop Sign  
 Rights: Include Include Include Include  
 Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0  
 \*\*\*\*\*  
 Volume Module:  
 Base Vol: 29 22 0 0 98 118 0 0 0 14 555 20  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 29 22 0 0 98 118 0 0 0 14 555 20  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 29 22 0 0 98 118 0 0 0 14 555 20  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 29 22 0 0 98 118 0 0 0 14 555 20  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Final Volume: 29 22 0 0 98 118 0 0 0 14 555 20  
 \*\*\*\*\*  
 Critical Gap Module:  
 Critical Gap: 7.1 6.5 xxxxx xxxxx 6.5 6.2 xxxxx xxxxx xxxxx 4.1 xxxxx xxxxx  
 FollowUpfm: 3.5 4.0 xxxxx xxxxx 4.0 3.3 xxxxx xxxxx xxxxx 2.2 xxxxx xxxxx  
 \*\*\*\*\*  
 Capacity Module:  
 Chnlct Vol: 355 603 xxxxx xxxxx 593 288 xxxxx xxxxx xxxxx 0 xxxxx xxxxx  
 Potent Cap: 604 416 xxxxx xxxxx 421 756 xxxxx xxxxx xxxxx 900 xxxxx xxxxx  
 Move Cap: 412 409 xxxxx xxxxx 415 756 xxxxx xxxxx xxxxx 900 xxxxx xxxxx  
 Volume/Cap: 0.07 0.05 xxxxx xxxxx 0.24 0.16 xxxxx xxxxx xxxxx 0.02 xxxxx xxxxx  
 \*\*\*\*\*  
 Level Of Service Module:  
 2Way95thQ: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx  
 Control Del: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx  
 LOS by Move: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT  
 Shared Cap: 411 xxxxx xxxxx xxxxx xxxxx 550 xxxxx xxxxx xxxxx 900 xxxxx xxxxx  
 Shared Queue: 0.4 xxxxx xxxxx xxxxx xxxxx 1.9 xxxxx xxxxx xxxxx 0.0 xxxxx xxxxx  
 Shrd ConDel: 15.0 xxxxx xxxxx xxxxx xxxxx 15.7 xxxxx xxxxx xxxxx 9.1 xxxxx xxxxx  
 Shared LOS: B A C A  
 Approach Del: 15.0 15.7  
 Approach LOS: B C  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Gutierrez St and Calle Cesar Chavez
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.480
Loss Time (sec):  10 (Y/R=0.0 sec)      Average Delay (sec/veh):  xxxxxx
Optimal Cycle:    32      Level Of Service:      A
*****
Street Name:      Calle Cesar Chavez
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:  L - T - R      L - T - R      L - T - R      L - T - R
-----
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0      0      0      0      0      0      0      0
Lanes:            1 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0
-----
Volume Module:
Base Vol:         68  66      0      0 137  78      0      0      0 46  613  24
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      68  66      0      0 137  78      0      0      0 46  613  24
Added Vol:        0      0      0      0 0 0 0 0 0 0 0 0
PasserByVol:      0      0      0      0 0 0 0 0 0 0 0 0
Initial Fut:      68  66      0      0 137  78      0      0      0 46  613  24
User Adj:         1.00 1.00 1.00 1.00 0.81 1.00 1.00 1.00 1.00 1.00 1.00 0.87
PHF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:       68  66      0      0 137  63      0      0      0 46  613  21
Reduced Vol:      68  66      0      0 0 0 0 0 0 0 0 0
PCE Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume:     68  66      0      0 137  63      0      0      0 46  613  21
-----
Saturation Flow Module:
Sat/Lane:         1600 1600      1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:            1.00 1.00 0.00 0.00 0.68 0.32 0.00 0.00 0.00 0.14 1.80 0.06
Final Sat.:       1600 1600      0 1095  505      0      0      0 217 2885  98
-----
Capacity Analysis Module:
Vol/Sat:          0.04 0.04 0.00 0.00 0.13 0.13 0.00 0.00 0.00 0.03 0.21 0.21
Crit Moves:      ****
*****

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Future Base PM				Wed Feb 20, 2008 15:47:11				Page 3-1			
Level Of Service Computation Report											
ICU l (Loss as Cycle Length %) Method (Future Volume Alternative)											
Intersection #1 Haley St and Garden St											
*****											
Cycle (sec): 100 Critical Vol./Cap.(X): 0.748											
Loss Time (sec): 10 (Y+R=0.0 sec) Average Delay (sec/veh): xxxxxx											
Optimal Cycle: 57 Level Of Service: C											
*****											
Street Name: Garden St Haley St											
Approach: North Bound South Bound East Bound West Bound											
Movement: L - T - R L - T - R L - T - R L - T - R											
Control: Permitted Permitted Permitted Permitted											
Rights: Include Include Include Include											
Min. Green: 0 0 0 0 0 1 0 0 0 0 1 0 0 0 0 0											
Lanes: 0 0 0 1 0 0 1 1 0 0 0 1 1 0 1 0 0 0 0 0											
*****											
Volume Module:											
Base Vol: 0 393 291 46 566 0 20 639 404 0 0 0											
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00											
Initial Bse: 0 393 291 46 566 0 20 639 404 0 0 0											
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0											
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0											
Initial Fut: 0 393 291 46 566 0 20 639 404 0 0 0											
User Adj: 1.00 1.00 0.92 1.00 1.00 1.00 1.00 1.00 0.85 1.00 1.00 1.00											
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00											
PHF Volume: 0 393 268 46 566 0 20 639 343 0 0 0											
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0											
Reduced Vol: 0 393 268 46 566 0 20 639 343 0 0 0											
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00											
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00											
Final Volume: 0 393 268 46 566 0 20 639 343 0 0 0											
*****											
Saturation Flow Module:											
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600											
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00											
Lanes: 0.00 0.59 0.41 0.15 1.85 0.00 0.06 1.94 1.00 0.00 0.00 0.00											
Final Sat: 0 952 648 241 2959 0 97 3103 1600 0 0 0											
*****											
Capacity Analysis Module:											
Vol/Sat: 0.00 0.41 0.41 0.03 0.19 0.00 0.01 0.21 0.21 0.00 0.00 0.00											
Crit Moves: ****											
*****											

INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET

PROJECT: 535 E. Montecito Street/ Los Portales Project		ANALYSIS CONDITION: Future Base PM Conditions	
INTERSECTION: Gutierrez Street at Garden Street		DATE OF ANALYSIS: 02/12/08	
MOVEMENT	LANES	CAPACITY	PM PEAK HOUR VOLUME
NBL	2	3200	351
NBT	1	1600	645
NBR	0		0
SBL	0		0.000
SBT	2	3200	934
SBTR	0		56
EBL	1	1600	0
EBLT	1	1600	0
EBTR	1	1600	0
WBL	1	1600	110
WBT	1	1600	512
WBR	1	1600	323
N/S Movements			0.419
E/W Movements			0.320
Rt. Turn Component			0.000
Yellow Clearance			0.100
TOTAL CAPACITY UTILIZATION (ICU)			0.839
LEVEL OF SERVICE (LOS)			D
ICU		LOS	
0.100 -	0.600	A	
0.601 -	0.700	B	
0.701 -	0.800	C	
0.801 -	0.900	D	
0.901 -	1.000	E	
1.001 -	UP	F	

Level Of Service Computation Report															
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)															
*****															
Intersection #3 US-101 NB Ramps and Garden St															
*****															
Cycle (sec):	100	Critical Vol./Cap.(X):	0.844												
Loss time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh):	xxxxxx												
Optimal Cycle:	78	Level Of Service:	D												
*****															
Street Name:		Garden St	US-101 NB Ramps												
Approach:		North Bound	South Bound	East Bound	West Bound										
Movement:		L - T - R	L - T - R	L - T - R	L - T - R										
Control:		Prot+Permit	Permitted	Permitted	Permitted										
Rights:		Include	Include	Include	Include										
Min. Green:		0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:		1	0	2	0	0	0	2	0	1	0	0	0	0	0
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Volume Module:															
Base Vol:	464	712	0	0	754	768	0	0	0	143	0	285			
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	464	712	0	0	754	768	0	0	0	143	0	285			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	464	712	0	0	754	768	0	0	0	143	0	285			
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.76	1.00	1.00	1.00	1.00	1.00	0.51		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	464	712	0	0	754	584	0	0	0	143	0	145			
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	464	712	0	0	754	584	0	0	0	143	0	145			
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	464	712	0	0	754	584	0	0	0	143	0	145			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Saturation Flow Module:															
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	0.00	0.99	0.01	1.00	1.00	1.00
Final sat:	1600	3200	0	0	3200	1600	0	0	0	1587	13	1600			
----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----															
Capacity Analysis Module:															
Vol/Sat:	0.29	0.22	0.00	0.00	0.24	0.36	0.00	0.00	0.00	0.09	0.09	0.09	0.00	0.09	0.09
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****
*****															



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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Gutierrez St and Calle Cesar Chavez
*****
Cycle (sec):          100          Critical Vol./Cap.(X):          0.422
Loss Time (sec):      10 (Y+R=0.0 sec) Average Delay (sec/veh):      xxxxxx
Optimal Cycle:        29          Level Of Service:          A
*****
Street Name:          Calle Cesar Chavez          Gutierrez St
Approach:             North Bound          South Bound          East Bound          West Bound
Movement:             L - T - R          L - T - R          L - T - R          L - T - R
-----
Control:             Permitted          Permitted          Permitted          Permitted
Rights:              0          0          0          0          0          0          0          0
Min. Green:          1          0          0          0          0          0          0          0
Lanes:               1          0          1          0          0          0          0          0
-----
Volume Module:
Base Vol:            85 105          0          0          92 89          0          0          0          29 496 39
Groth Adj:           1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00
Initial Bse:          85 105          0          0          92 89          0          0          0          29 496 39
Added Vol:           0          0          0          0          0          0          0          0          0          0
PasserByVol:         0          0          0          0          0          0          0          0          0          0
Initial Fut:          85 105          0          0          92 89          0          0          0          29 496 39
User Adj:            1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00
PHF Adj:             1.03 1.00          1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00
PHF Volume:          85 105          0          0          92 60          0          0          0          29 496 32
Reduct Vol:          0          0          0          0          0          0          0          0          0          0
Reduced Vol:         85 105          0          0          92 60          0          0          0          29 496 32
PCE Adj:            1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00
WLF Adj:            1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00
FinalVolume:         85 105          0          0          92 60          0          0          0          29 496 32
-----
Saturation Flow Module:
Sat/Lane:           1600 1600          1600 1600          1600 1600          1600 1600
Adjustment:          1.00 1.00          1.00 1.00          1.00 1.00          1.00 1.00
Lanes:              1.00 1.00          0.00 0.61          0.39 0.00          0.00 0.00
Final Sat.:         1600 1600          0          971 629          0          0          167 2852 182
-----
Capacity Analysis Module:
Vol/Sat:            0.05 0.07          0.00 0.00          0.09 0.09          0.00 0.00
Crit Moves:         ****          ****          ****          ****
*****

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# **CUMULATIVE PROJECT CONDITIONS**

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Impact Analysis Report  
Level Of Service

Intersection	Base Del/V/ LOS Veh C	Future Del/V/ LOS Veh C	Change in
# 1 Haley St and Garden St	C xxxxx 0.765	C xxxxx 0.765	+ 0.000 V/C
# 3 US-101 NB Ramps and Garden St	B xxxxx 0.620	B xxxxx 0.620	+ 0.000 V/C
# 4 US-101 SB Ramps and Garden St	A xxxxx 0.510	A xxxxx 0.510	+ 0.000 V/C
# 5 Gutierrez St and Olive St	C 15.9 0.000	C 15.9 0.000	+ 0.000 D/V
# 6 Gutierrez St and Calle Cesar C	A xxxxx 0.481	A xxxxx 0.481	+ 0.000 V/C

-----

ICU 1(floss as Cycle Length %) Method (Future Volume Alternative)  
\*\*\*\*\*  
Intersection #1 Haley St and Garden St  
\*\*\*\*\*  
Cycle (sec): 100      Critical Vol./Cap.(X): 0.765  
Loss Time (sec): 10 (YR=0.0 sec)      Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 60      Level Of Service: C  
\*\*\*\*\*  
Street Name: Garden St      Haley St  
Approach: North Bound      South Bound      East Bound      West Bound  
Movement: L - T - R      L - T - R      L - T - R      L - T - R  
Control: Permitted      Permitted      Permitted      Permitted  
Rights: Include      Include      Include      Include  
Min. Green: 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 0 0  
Lanes: 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 0 0  
-----  
Volume Module:  
Base Vol: 0 372 438 48 403 0 21 435 222 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 372 438 48 403 0 21 435 222 0 0 0  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 372 438 48 403 0 21 435 222 0 0 0  
User Adj: 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 0 372 416 48 403 0 21 435 204 0 0 0  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PCE Adj: 0 372 416 48 403 0 21 435 204 0 0 0  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 0 372 416 48 403 0 21 435 204 0 0 0  
-----  
Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.00 0.47 0.53 0.21 1.79 0.00 0.09 1.91 1.00 0.00 0.00  
Final Sat.: 0 755 845 341 2859 0 147 3053 1600 0 0 0  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.49 0.49 0.03 0.14 0.00 0.01 0.14 0.13 0.00 0.00  
Crit Moves: \*\*\*\*  
\*\*\*\*\*

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Level Of Service Computation Report  
\*\*\*\*\*  
Intersection #1 Haley St and Garden St  
\*\*\*\*\*  
Cycle (sec): 100      Critical Vol./Cap.(X): 0.765  
Loss Time (sec): 10 (YR=0.0 sec)      Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 60      Level Of Service: C  
\*\*\*\*\*  
Street Name: Garden St      Haley St  
Approach: North Bound      South Bound      East Bound      West Bound  
Movement: L - T - R      L - T - R      L - T - R      L - T - R  
Control: Permitted      Permitted      Permitted      Permitted  
Rights: Include      Include      Include      Include  
Min. Green: 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 0 0  
Lanes: 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 0 0  
-----  
Volume Module:  
Base Vol: 0 372 438 48 403 0 21 435 222 0 0 0  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 372 438 48 403 0 21 435 222 0 0 0  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 0 372 438 48 403 0 21 435 222 0 0 0  
User Adj: 1.00 1.00 0.95 1.00 1.00 1.00 1.00 1.00 0.92 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 0 372 416 48 403 0 21 435 204 0 0 0  
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PCE Adj: 0 372 416 48 403 0 21 435 204 0 0 0  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
FinalVolume: 0 372 416 48 403 0 21 435 204 0 0 0  
-----  
Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 0.00 0.47 0.53 0.21 1.79 0.00 0.09 1.91 1.00 0.00 0.00  
Final Sat.: 0 755 845 341 2859 0 147 3053 1600 0 0 0  
-----  
Capacity Analysis Module:  
Vol/Sat: 0.00 0.49 0.49 0.03 0.14 0.00 0.01 0.14 0.13 0.00 0.00  
Crit Moves: \*\*\*\*  
\*\*\*\*\*

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Level Of Service Computation Report															
ICU I(Loss as Cycle Length %) Method (Future Volume Alternative)															
*****															
Intersection #3 US-101 NB Ramps and Garden St															
*****															
Cycle (sec):	100	Critical Vol./Cap.(X):				0.620									
Loss Time (sec):	10	(Y+R=0.0 sec)		Average Delay (sec/veh):		xxxxxx									
Optimal Cycle:	42	Level Of Service:				B									
*****															
Street Name:	Garden St	US-101 NB Ramps													
Approach:	North Bound	South Bound		East Bound		West Bound									
Movement:	L - T - R	- R	L - T - R	- R	L - T - R	- R	L - T - R								
Control:	Protpermit	Permitted	Permitted	Permitted	Include	Permitted	Include								
Rights:	Include	Include	Include	Include	Include	Include	Include								
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max. Green:	1	0	2	0	0	0	2	1	0	0	0	0	0	1	0
*****															
Volume Module:															
Access Vol:	223	804	0	0	519	615	0	0	0	133	0	254			
Through Adj:	1	0	0	1	0	0	1	0	0	1	0	0	1	0	0
Initial Bse:	223	804	0	0	519	615	0	0	0	133	0	254			
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
PassingVol:	0	0	0	0	0	0	0	0	0	0	0	0			
Initial Fut:	223	804	0	0	519	615	0	0	0	133	0	254			
PHF Adj:	1	0	0	1	0	0	0	76	1	0	0	0	0	56	0
USER Adj:	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0
PHF Adj:	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0
EHF Volume:	223	804	0	0	519	467	0	0	0	133	0	142			
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0			
Reduced Vol:	223	804	0	0	519	467	0	0	0	133	0	142			
PCE Adj:	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0
VLF Adj:	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0
FinalVolume:	223	804	0	0	519	467	0	0	0	133	0	142			
*****															
Saturation Flow Module:															
SatFlow/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600			
Adjadustment:	1	0	0	1	0	0	0	1	0	0	0	0	1	0	0
Lanes:	1	0	2	0	0	0	0	1	0	0	0	0	0	97	0
Final Sat:	1600	3200	0	0	3200	1600	0	0	0	1546	54	1600			
*****															
Capacity Analysis Module:															
Vol/Cap:	0.14	0.25	0.00	0.00	0.16	0.29	0.00	0.00	0.00	0.08	0.00	0.09			
Crit Moves:	***	***	***	***	***	***	***	***	***	***	***	***			
*****															





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-----
Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Gutierrez St and Calle Cesar Chavez
*****
Cycle (sec):      100      Critical Vol./Cap.(X):      0.481
Loss time (sec):  10 (Y+R=0.0 sec) Average Delay (sec/veh):  xxxxxx
Optimal Cycle:    32      Level Of Service:      A
*****
Street Name:      Calle Cesar Chavez
Approach:          North Bound      South Bound      East Bound      West Bound
Movement:  L--T--R      L--T--R      L--T--R      L--T--R
Control:          Permitted      Permitted      Permitted      Permitted
Rights:           Include      Include      Include      Include
Min. Green:       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes:            1 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0
Volume Module:
Base Vol:         76 68 0 0 139 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Growth Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:       76 68 0 0 139 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Added Vol:         0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:       0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:       76 68 0 0 139 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User Adj:          1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:        76 68 0 0 139 55 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduc Vol:         0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PCE Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:           1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:       76 68 0 0 139 55 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Saturation Flow Module:
Sat/Lane:         1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:             1.00 1.00 0.00 0.00 0.72 0.28 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.14 1.80 0.06
Final Sat:         1600 1600 0 0 1149 456 0 0 0 0 0 0 0 0 217 2885 98
Capacity Analysis Module:
Vol/Sat:           0.05 0.04 0.00 0.00 0.12 0.12 0.00 0.00 0.00 0.00 0.00 0.00 0.03 0.21 0.21
Crit Moves:       ****
*****

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Impact Analysis Report Level Of Service				
Intersection	Base Del/ LOS Veh C	V/ C	Future Del/ LOS Veh C	Change in
# 1 Haley St and Garden St	C xxxxx	0.755	C xxxxx	0.755 + 0.000 V/C
# 3 US-101 NB Ramps and Garden St	D xxxxx	0.846	D xxxxx	0.846 + 0.000 V/C
# 4 US-101 SB Ramps and Garden St	B xxxxx	0.663	B xxxxx	0.663 + 0.000 V/C
# 5 Gutierrez St and Olive St	C 21.2	0.000	C 21.2	0.000 + 0.000 D/V
# 6 Gutierrez St and Calle Cesar C	A xxxxx	0.429	A xxxxx	0.429 + 0.000 V/C

Level Of Service Computation Report												
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)												
Intersection #1 Haley St and Garden St												
Cycle (sec):	100	Critical Vol./Cap.(X):		0.755								
Loss Time (sec):	10 (Y+R=0.0 sec)	Average Delay (sec/veh):		xxxxxx								
Optimal Cycle:	58	Level Of Service:		C								
*****												
Street Name:	Garden St		Haley St									
Approach:	North Bound		South Bound		East Bound		West Bound					
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted	Permitted
Rights:	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	1	0	0	0	1	0	1	0	0
*****												
Volume Module:												
Base Vol:	0	394	298	49	566	0	20	641	404	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	394	298	49	566	0	20	641	404	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	394	298	49	566	0	20	641	404	0	0	0
User Adj:	1.00	1.00	0.92	1.00	1.00	1.00	1.00	1.00	0.85	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	394	274	49	566	0	20	641	343	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	394	274	49	566	0	20	641	343	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	0	394	274	49	566	0	20	641	343	0	0	0
*****												
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.00	0.59	0.41	0.16	1.84	0.00	0.06	1.94	1.00	0.00	0.00	0.00
Final Sat:	0	943	657	255	2945	0	97	3103	1600	0	0	0
*****												
Capacity Analysis Module:												
Vol/Sat:	0.00	0.42	0.42	0.03	0.19	0.00	0.01	0.21	0.21	0.00	0.00	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
*****												

**INTERSECTION CAPACITY UTILIZATION  
CALCULATION WORKSHEET**

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<b>PROJECT:</b> 535 E Montecito Street "Los Portales" Project		<b>ANALYSIS CONDITION:</b> Cumulative Project PM Conditions	
<b>INTERSECTION:</b> Gutierrez Street at Garden Street		<b>DATE OF ANALYSIS:</b> 02/12/08	
<b>MOVEMENT</b>		<b>LANES</b>	<b>CAPACITY</b>
NBL	2	3200	
NBT	1	1600	
NBR	0		
SBL	0		
SBT	2	3200	
SBTR	0		
EBL	0		
EBLT	0		
EBTR	0		
WBL	1	1600	
WBT	1	1600	
WBR	1	1600	
N/S Movements			
E/W Movements			
Rt. Turn Component			
Yellow Clearance			
<b>TOTAL CAPACITY UTILIZATION (ICU)</b>		<b>0.840</b>	
<b>LEVEL OF SERVICE (LOS)</b>		<b>D</b>	
<b>ICU</b>		<b>LOS</b>	
0.100 -	0.600	A	
0.601 -	0.700	B	
0.701 -	0.800	C	
0.801 -	0.900	D	
0.901 -	1.000	E	
1.001 -	UP	F	

Level Of Service Computation Report										
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)										
*****										
Intersection #3 US-101 NB Ramps and Garden St										
*****										
Cycle (sec):	100	Critical Vol./Cap.(X):	0.846							
Loss time (sec):	10 (V+R=0.0 sec)	Average Delay (sec/veh):	xxxxxx							
Optimal Cycle:	79	Level Of Service:	D							
*****										
Street Name:	Garden St		US-101 NB Ramps							
Approach:	North Bound	South Bound	East Bound	West Bound						
Movement:	L	-	T	-	R	L	-	T	-	R
Control:	Prot+Permit		Permitted		Permitted		Permitted			
Rights:	Include		Include		Include		Include			
Min. Green:	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	0	0	2	0	0	0
*****										
Volume Module:										
Base Vol:	464	718	0	0	755	771	0	0	143	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	464	718	0	0	755	771	0	0	143	0
Added Vol:	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0
Initial Fut:	464	718	0	0	755	771	0	0	143	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	464	718	0	0	755	586	0	0	143	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	464	718	0	0	755	586	0	0	143	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	464	718	0	0	755	586	0	0	143	0
*****										
Saturation Flow Module:										
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.00
Final Sat:	1600	3200	0	0	3200	1600	0	0	1584	16
*****										
Capacity Analysis Module:										
Vol/Sat:	0.29	0.22	0.00	0.00	0.24	0.37	0.00	0.00	0.09	0.09
Crit Moves:	****	****	****	****	****	****	****	****	****	****
*****										

Level Of Service Computation Report												
2000 HCM Unsignalized Method (Future Volume Alternative)												
*****												
Intersection #5 Gutierrez St and Olive St												
*****												
Average Delay (sec/veh):	6.3	Worst Case Level Of Service: C [ 21.2]										
*****												
Street Name:	Olive St	Gutierrez St										
Approach:	North Bound	South Bound	East Bound	West Bound								
Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R							
Control:	Stop Sign	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled							
Rights:	Include	Include	Include	Include	Include							
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0	0 1 0 1 0							
*****												
Volume Module:												
Base Vol:	87	28	0	0	74	175	0	0	0	12	702	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	28	0	0	74	175	0	0	0	12	702	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	28	0	0	74	175	0	0	0	12	702	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	87	28	0	0	74	175	0	0	0	12	702	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	87	28	0	0	74	175	0	0	0	12	702	43
*****												
Critical Gap Module:												
Critical Gap:	7.1	6.5	xxxxxx	xxxxxx	6.5	6.2	xxxxxx	xxxxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTIm:	3.5	4.0	xxxxxx	xxxxxx	4.0	3.3	xxxxxx	xxxxxx	xxxxxx	2.2	xxxx	xxxxxx
*****												
Capacity Module:												
Conflict Vol:	412	769	xxxxxx	xxxxxx	748	373	xxxxxx	xxxxxx	xxxxxx	0	xxxx	xxxxxx
Potent Cap:	534	334	xxxxxx	xxxxxx	344	678	xxxxxx	xxxxxx	xxxxxx	900	xxxxxx	xxxxxx
Move Cap:	338	329	xxxxxx	xxxxxx	339	678	xxxxxx	xxxxxx	xxxxxx	900	xxxxxx	xxxxxx
Volume/Cap:	0.26	0.09	xxxxxx	xxxxxx	0.22	0.26	xxxxxx	xxxxxx	xxxxxx	0.01	xxxxxx	xxxxxx
*****												
Level of Service Module:												
2Way5thQ:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.0	xxxxxx	xxxxxx
Control Del:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.1	xxxxxx	xxxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap:	336	xxxxxx	xxxxxx	xxxxxx	523	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
SharedQueue:	1.5	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.0	xxxxxx	xxxxxx
Shrd ConDel:	21.2	xxxxxx	xxxxxx	xxxxxx	xxxxxx	18.0	xxxxxx	xxxxxx	xxxxxx	9.1	xxxxxx	xxxxxx
Shared LOS:	C	*	*	*	*	C	*	*	*	A	*	*
ApproachDel:	21.2	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachLOS:	C	C	C	C	C	C	C	C	C	*	*	*
*****												
Note: Queue reported is the number of cars per lane.												
*****												

Level Of Service Computation Report												
2000 HCM Unsignalized Method (Future Volume Alternative)												
*****												
Intersection #5 Gutierrez St and Olive St												
*****												
Average Delay (sec/veh):	6.3	Worst Case Level Of Service: C[ 21.2]										
*****												
Street Name:	Olive St			South Bound			East Bound			Gutierrez St		
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	1	0	0	0	0	0	0	0	0	1	0
-----												
Volume Module:												
Base Vol:	87	28	0	0	74	175	0	0	0	12	702	43
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	87	28	0	0	74	175	0	0	0	12	702	43
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	87	28	0	0	74	175	0	0	0	12	702	43
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	87	28	0	0	74	175	0	0	0	12	702	43
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	87	28	0	0	74	175	0	0	0	12	702	43
-----												
Critical Gap Module:												
Critical Gap:	7.1	6.5	xxxxxx	xxxxxx	6.5	6.2	xxxxxx	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTm:	3.5	4.0	xxxxxx	xxxxxx	4.0	3.3	xxxxxx	xxxx	xxxxxx	2.2	xxxx	xxxxxx
-----												
Capacity Module:												
Conflict Vol:	412	769	xxxxxx	xxxxxx	748	373	xxxxxx	xxxxxx	xxxxxx	0	xxxxxx	xxxxxx
Potent Cap:	554	334	xxxxxx	xxxxxx	344	678	xxxxxx	xxxxxx	xxxxxx	900	xxxxxx	xxxxxx
Move Cap:	338	329	xxxxxx	xxxxxx	339	678	xxxxxx	xxxxxx	xxxxxx	900	xxxxxx	xxxxxx
Volume/Cap:	0.26	0.09	xxxxxx	xxxxxx	0.22	0.26	xxxxxx	xxxxxx	xxxxxx	0.01	xxxxxx	xxxxxx
-----												
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0.0	xxxxxx	xxxxxx
Control Del:	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	9.1	xxxxxx	xxxxxx
LOS by Move:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	A	*	*
Movement:	336	xxxxxx	xxxxxx	xxxxxx	xxxxxx	523	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Shared Cap:	1.5	xxxxxx	xxxxxx	xxxxxx	xxxxxx	2.5	xxxxxx	xxxxxx	xxxxxx	0.0	xxxxxx	xxxxxx
Shared Queue:	21.2	xxxxxx	xxxxxx	xxxxxx	xxxxxx	18.0	xxxxxx	xxxxxx	xxxxxx	9.1	xxxxxx	xxxxxx
Shrd ConDel:	C	*	*	*	*	C	*	*	*	A	*	*
Shared LOS:	21.2	18.0	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
ApproachDel:	C	C	C	C	C	C	C	C	C	C	C	C
ApproachLOS:	C	C	C	C	C	C	C	C	C	C	C	C
*****												
Note: Queue reported is the number of cars per lane.												
*****												

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Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)
*****
Intersection #6 Gutierrez St and Calle Cesar Chavez
*****
Cycle (sec): 100 Critical Vol./Cap.(X): 0.429
Loss Time (Sec): 10 (Y-R=0.0 sec) Average Delay (sec/veh): xxxxx
Optimal Cycle: 30 Level Of Service: A
*****
Street Name: Calle Cesar Chavez Gutierrez St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted Permitted Permitted
Rights: Include Include Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 1 0 1 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0
Volume Module:
Base Vol: 88 105 0 0 100 89 0 0 0 0 0 0 30 496 39
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 88 105 0 0 100 89 0 0 0 0 0 0 30 496 39
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 88 105 0 0 100 89 0 0 0 0 0 0 30 496 39
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 88 105 0 0 100 89 0 0 0 0 0 0 30 496 32
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 88 105 0 0 100 89 0 0 0 0 0 0 30 496 32
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 88 105 0 0 100 89 0 0 0 0 0 0 30 496 32
Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.00 0.00 0.00 0.63 0.37 0.00 0.00 0.00 0.00 0.11 1.78 0.11
Final Sat.: 1600 1600 0 0 1002 598 0 0 0 0 172 2847 181
Capacity Analysis Module:
Vol/Sat: 0.06 0.07 0.09 0.00 0.10 0.10 0.00 0.00 0.00 0.00 0.02 0.17 0.17
Crit Moves: ***
*****

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**APPENDIX C**

**RELATED PROJECT LIST**

Iteris, Inc.

Trip Generation Worksheet - With In/Out Splits

## 535 EAST MONTECITO STREET PROJECT

Land Use	Size	Pass-by Factor	ADT		A.M. Peak Hour					P.M. Peak Hour							
			Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips	
CITY PROJECTS - RESIDENTIAL																	
Net change of 5 or more Residential Units or Lots																	
1.	Res. Condo	12	1.00	5.86	70	0.440	5	17%	1	83%	4	0.52	6	67%	4	33%	2
2.	Res. Condo	-8	1.00	5.86	-47	0.440	-4	17%	-1	83%	-3	0.52	-4	67%	-3	33%	-1
3	Res. Condo	6	1.00	5.86	35	0.440	3	17%	1	83%	2	0.52	3	67%	2	33%	1
4	Res. Condo	9	1.00	5.86	53	0.440	4	17%	1	83%	3	0.52	5	67%	3	33%	2
5	Res. Condo	8	1.00	5.86	47	0.440	4	17%	1	83%	3	0.52	4	67%	3	33%	1
Project Total:			27		158		12		3		9		14		9		5

Projects List:

- 1 21 E Anapamu
- 2 222 W Yanonali
- 3 211 Castillo
- 4 517 Figueroa
- 5 203 Chapala

Iteris, Inc.

Trip Generation Worksheet - With In/Out Splits

## 535 EAST MONTECITO STREET PROJECT

Land Use	Size	Pass-by Factor	ADT		A.M. Peak Hour					P.M. Peak Hour						
			Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
CITY PROJECTS - MIXED USE																
Net change of 5 or more Residential Units or Lots/ 1000 Sq-Ft. non Residential																
11. Res. Condo	6	1.00	5.86	35	0.440	3	17%	1	83%	2	0.52	3	67%	2	33%	1
Retail	2,872	1.00	46.55	134	1.400	4	60%	2	40%	2	4.55	13	43%	6	57%	7
12. Res. Condo	7	1.00	5.86	41	0.440	3	17%	1	83%	2	0.52	4	67%	3	33%	1
Retail	2,000	1.00	46.55	93	1.400	3	60%	2	40%	1	4.55	9	43%	4	57%	5
13. Res. Condo	5	1.00	5.86	29	0.440	2	17%	0	83%	2	0.52	3	67%	2	33%	1
Retail	1,824	1.00	46.55	85	1.400	3	60%	2	40%	1	4.55	8	43%	4	57%	4
14. Res. Condo	14	1.00	5.86	82	0.440	6	17%	1	83%	5	0.52	7	67%	5	33%	2
Office	2,110	1.00	22.66	48	2.970	6	86%	5	14%	1	3.40	7	18%	1	82%	6
15. Mental Health Association ATE #03154				427		53		36		17		57		16		41
16. Affordable Housing Project #04026				119		-1		-1		0		-2		-1		-1
17. Res. Condo	7	1.00	5.86	41	0.440	3	17%	1	83%	2	0.52	4	67%	3	33%	1
Retail	6,375	1.00	46.55	297	1.400	9	60%	5	40%	4	4.55	29	43%	12	57%	17
18. SFD	???															
Retail	-5,507	1.00	46.55	-256	1.400	-8	60%	-5	40%	-3	4.55	-25	43%	-11	57%	-14
Res. Condo	10	1.00	5.86	59	0.440	4	17%	1	83%	3	0.52	5	67%	3	33%	2
Retail	11,507	1.00	46.05	530	1.400	16	60%	10	40%	6	4.27	49	43%	21	57%	28
19. Office	-18,700	1.00	19.62	-367	2.620	-49	86%	-42	14%	-7	2.89	-54	18%	-10	82%	-44
Office	9,500	1.00	22.66	215	2.970	28	86%	24	14%	4	3.40	32	18%	6	82%	26
Res. Condo	18	1.00	5.86	105	0.440	8	17%	1	83%	7	0.52	9	67%	6	33%	3
20. Radio Square Mixed Use Project ATE #05166				255		22						22				
Office	-7,245	1.00	22.66	-164	2.970	-22	86%	-19	14%	-3	3.40	-25	18%	-4	82%	-21
Retail	2,000	1.00	46.55	93	1.400	3	60%	2	40%	1	4.55	9	43%	4	57%	5
Res. Condo	9	1.00	5.86	53	0.440	4	17%	1	83%	3	0.52	5	67%	3	33%	2
22. Res. Condo	8	1.00	5.86	47	0.440	4	17%	1	83%	3	0.52	4	67%	3	33%	1
Retail	3,198	1.00	46.55	149	1.400	4	60%	3	40%	1	4.55	15	43%	6	57%	9
23. Retail	-15,371	1.00	45.23	-695	1.360	-21	60%	-13	40%	-8	3.80	-58	43%	-25	57%	-33
Res. Condo	15	1.00	5.86	88	0.440	7	17%	1	83%	6	0.52	8	67%	5	33%	3
Retail	14,168	1.00	45.44	644	1.360	19	60%	12	40%	7	3.92	56	43%	24	57%	32
24. Office	-35,841	1.00	16.89	-605	2.300	-82	86%	-71	14%	-11	2.43	-87	18%	-16	82%	-71
Retail	23,091	1.00	44.41	1,025	1.330	31	60%	18	40%	13	3.33	77	43%	33	57%	44
Res. Condo	29	1.00	5.86	170	0.440	13	17%	2	83%	11	0.52	15	67%	10	33%	5
25. Office	-7,343	1.00	22.66	-166	2.970	-22	86%	-19	14%	-3	3.40	-25	18%	-4	82%	-21
Res. Condo	6	1.00	5.86	35	0.440	3	17%	1	83%	2	0.52	3	67%	2	33%	1
Retail	4,615	1.00	46.55	215	1.400	6	60%	4	40%	2	4.55	21	43%	9	57%	12
26. Retail	-244	1.00	46.55	-11	1.400	0	60%	0	40%	0	4.55	-1	43%	0	57%	-1
Res. Condo	2	1.00	5.86	12	0.440	1	17%	0	83%	1	0.52	1	67%	1	33%	0
Retail	2,195	1.00	46.55	102	1.400	3	60%	2	40%	1	4.55	10	43%	4	57%	6
27. N/A*																
Office	-1,956	1.00	22.66	-44	2.970	-6	86%	-5	14%	-1	3.40	-7	18%	-1	82%	-6
Res. Condo	8	1.00	5.86	47	0.440	4	17%	1	83%	3	0.52	4	67%	3	33%	1
Retail	18,713	1.00	44.79	#REF!	1.340	25	60%	15	40%	10	3.55	66	44%	29	56%	37
29. Retail	15,000	1.00	44.79	#REF!	1.400	21	60%	13	40%	8	4.55	68	44%	30	56%	38
Res. Condo	29	1.00	5.86	170	0.440	13	17%	2	83%	11	0.52	15	67%	10	33%	5
30. Paseo De La Playa				3730		44						223				
Project Total:				#REF!		168		-20		88		578		158		92

Projects List:

- |                        |    |                    |
|------------------------|----|--------------------|
| 11. 517 Chapala        | 21 | 117 W De La Guerra |
| 12. 523 Chapala        | 22 | 803 N Milpas       |
| 13. 110 E Cota Street  | 23 | 1025 Santa Barbara |
| 14. 121 W De La Guerra | 24 | 318 State          |
| 15. 617 Garden         | 25 | 116 E Yanonali     |
| 16. 401 Chapala        | 26 | 518 State          |
| 17. 412 Anacapa        | 27 | 1221 Anacapa       |
| 18. 630 Anacapa        | 28 | 800 Santa Barbara  |
| 19. 433 Canon Perdido  | 29 | 1330 Chapala       |
| 20. 210 W Carillo      | 30 | 101 Garden         |

Iteris, Inc.

Trip Generation Worksheet - With In/Out Splits

## 535 EAST MONTECITO STREET PROJECT

Land Use	Size	Pass-by Factor	ADT		A.M. Peak Hour						P.M. Peak Hour					
			Rate	Trips	Rate	Trips	In %	Trips	Out %	Trips	Rate	Trips	In %	Trips	Out %	Trips
CITY PROJECTS - NON RESIDENTIAL																
Net change over 1000 Sq-Ft. non Residential																
31. Office	2,900	1.00	22.66	66	1,550	4	86%	4	14%	0	3.40	10	18%	2	82%	8
32. High Turnover Restaurant	1,298	1.00	127.15	165	11,520	15	52%	8	48%	7	10.92	14	62%	9	38%	5
33. Retail	2,478	1.00	46.55	115	1,400	3	60%	2	40%	1	4.55	11	43%	5	57%	6
34. Youth Hostel	26	1.00	5.63	146	0.450	12	38%	5	62%	7	0.47	12	53%	6	47%	6
35. N/A*																
36. Quality Restaurant	2,353	1.00	89.95	212	0.810	2	50%	1	50%	1	7.49	18	67%	12	33%	6
37. Retail	3,904	1.00	46.55	182	1,400	5	60%	3	40%	2	4.55	18	43%	8	57%	10
38. Retail	1,597	1.00	46.55	74	1,400	2	60%	1	40%	1	4.55	7	43%	3	57%	4
39. Warehouse	2,905	1.00	4.96	14	0.450	1	100%	1	0%	0	0.47	1	0%	0	100%	1
40. Retail	1,933	1.00	46.55	90	1,400	3	60%	2	40%	1	4.55	9	43%	4	57%	5
41. N/A*																
42. Res. Condo	-1	1.00	5.86	-6	0.440	0	17%	0	83%	0	0.52	-1	67%	-1	33%	0
Retail	-3,785	1.00	46.55	-176	1,400	-5	60%	-3	40%	-2	4.55	-17	43%	-7	57%	-10
Office	7,150	1.00	22.66	162	1,550	11	86%	10	14%	1	3.40	24	18%	4	82%	20
Retail	2,200	1.00	46.55	102	1,400	3	60%	2	40%	1	4.55	10	43%	4	57%	6
43. Garage	-2,009	1.00	N/A	0		0		0		0		0		0		0
44. N/A*																
45. N/A*																
46. Light Industrial	-1,998	1.00	6.97	-14	0.920	-2	100%	-2	0%	0	0.98	-2	0%	0	100%	-2
Res. Condo	8	1.00	5.86	47	0.440	4	17%	1	83%	3	0.52	4	67%	3	33%	1
Retail	3,016	1.00	46.55	140	1,400	4	60%	3	40%	1	4.55	14	43%	6	57%	8
47. Office	8,159	1.00	22.66	185	1,550	13	86%	11	14%	2	3.40	28	18%	5	82%	23
48. Light Industrial	-1,150	1.00	6.97	-8	0.920	-1	100%	-1	0%	0	0.98	-1	0%	0	100%	-1
Office	2,564	1.00	22.66	58	1,550	4	86%	3	14%	1	3.40	9	18%	2	82%	7
Retail	1,049	1.00	46.55	49	1,400	1	60%	1	40%	0	4.55	5	43%	2	57%	3
50. Res. Condo	-1	1.00	5.86	-6	0.440	0	17%	0	83%	0	0.52	-1	67%	-1	33%	0
Retail	2,653	1.00	46.55	123	1,400	4	60%	2	40%	2	4.55	12	43%	5	57%	7
51. Retail	2,717	1.00	46.55	126	1,400	4	60%	2	40%	2	4.55	12	43%	5	57%	7
52. N/A*																
53. N/A*																
54. WATS 2	N/A		N/A	0	N/A	0	0%	0	0%	0	N/A	0	0%	0	0%	0
55. House	-1	1.00	9.57	-10	0.750	-1	0%	0	100%	-1	1.01	-1	100%	-1	0%	0
Office	10,204	1.00	11.01	112	1,550	16	86%	14	14%	2	3.43	35	18%	6	82%	29
56. Light Industrial	1,550	1.00	6.97	11	0.920	1	100%	1	0%	0	0.98	2	0%	0	100%	2
57. Light Industrial	1,171	1.00	6.97	8	0.920	1	100%	1	0%	0	0.98	1	0%	0	100%	1
58. N/A*																
59. Retail	1,187	1.00	46.55	55	1,400	2	60%	1	40%	1	4.55	5	43%	2	57%	3
60. N/A*																
61. Res. Condo	-1	1.00	5.86	-6	0.440	0	17%	0	83%	0	0.52	-1	67%	-1	33%	0
Bed & Breakfast	5	1.00	8.17	41	0.560	3	61%	2	39%	1	0.59	3	53%	2	47%	1
62. N/A*																
63. Retail	1,967	1.00	46.55	92	1,400	3	60%	2	40%	1	4.55	9	43%	4	57%	5
64. Office	1,400	1.00	22.66	32	1,550	2	86%	2	14%	0	3.40	5	18%	1	82%	4
65. Retail	15,838	1.00	45.16	715	1,350	21	60%	13	40%	8	3.76	60	43%	26	57%	34
66. Spearmint Rhino?	-4,400	1.00	46.55	-205		0	0%	0	0%	0	4.55	-20	66%	-13	34%	-7
Hotel	50	1.00	8.92	446	0.670	34	59%	20	41%	14	0.70	35	48%	17	52%	18
67. SB Zoo				58		7		7		0		7		0		7
68. Church	3,279	1.00	9.11	30	0.720	2	50%	1	40%	1	0.66	2	50%	1	50%	1
69. Office	1,081	1.00	22.66	24	2,970	3	86%	3	14%	0	3.40	4	18%	1	82%	3
70. Light Industrial	23,981	1.00	6.97	167	0.920	22	100%	22	0%	0	0.98	24	0%	0	100%	24
71. Manufacturing	5,704	1.00	3.82	22	0.730	4	75%	3	15%	1	0.74	4	50%	2	50%	2
72. Quality Restaurant	4,362	1.00	89.95	392	0.810	4	52%	2	48%	2	7.49	33	67%	22	33%	11
73. Retail	42,500	1.00	43.67	1,856	1,310	56	60%	33	40%	23	2.91	124	43%	53	57%	71
74. Hotel	150	1.00	8.92	1,338	0.670	101	59%	60	41%	41	0.70	105	48%	50	52%	55
75. Retail	-11,900	1.00	43.67	-520	1,310	-16	60%	-9	40%	-7	2.91	-35	43%	-15	57%	-20
Office	17,443	1.00	22.66	395	1,550	27	86%	23	14%	4	3.40	59	18%	11	82%	48
Project Total:				6,902		381		257		124		654		244		410

Projects List:

31. 1101 Anacapa	43. 335 E Gutierrez	56. 520 E Yanonali	69. 631 Olive
32. 625 Chapala	44. 201 E Haley	57. 716 E Yanonali	70. 117 N Quarantina
33. 202 E Haley	45. 632 E Haley	58. 1221 Anacapa	71. 620 Quinientos
34. 12 E Montecito	46. 803 N Milpas	59. 301 W Cabrillo	72. 628 State
35. 1214 State	47. 403 E Montecito	60. 632 E Canon Perdido	73. 211 E Yanonali
36. 801 State	48. 336 N Nopal	61. 618 Castillo	74. 433 E. Cabrillo
37. 26 W Anapamu	49. 308 Palm	62. 614 E Haley	75. 101 E. Victoria
38. 824 Cacique	50. 406 N Quarantina	63. 709 E Haley	
39. 130 N Calle Cesar Chavez	51. 408 N Quarantina	64. 520 Laguna	
40. 1221 Chapala	52. 217 State	65. 711 N Milpas	
41. 8 E Figueroa	53. 29 State	66. 22 E Montecito	
42. 518 Garden	54. 35 State	67. 500 Ninos	
	55. 130 E Victoria	68. 221 N Nopal	



## **APPENDIX D**

# **TRAFFIC SIGNAL WARRANT WORKSHEETS**

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

Intersection	Signal Warrant Summary Report	
	Base Met	[Del / Vol]
	No	No / No
# 5 Gutierrez St and Olive St		

Intersection  
# 5 Gutierrez St and Olive St

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

## Scenario Report

Existing AM

```
Command: Existing AM
Volume: Existing AM
Geometry: Default Geometry
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration
```

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

## Peak Hour Delay Signal Warrant Report

\*\*\*\*\* Intersection #5 Gutierrez St and Olive St \*\*\*\*\*

\*\*\*\*\* Base Volume Alternative: Peak Hour Warrant NOT Met \*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	29 22 0	0 97 116	0 0 0 0	14 547 20
ApproachDel:	14.8	15.5	xxxxxx	xxxxxx

\*\*\*\*\* Approach[northbound][lanes=1][control=Stop Sign] \*\*\*\*\*

Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.Signal Warrant Rule #2: [approach volume=51]  
FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=845]

SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

\*\*\*\*\* Approach[southbound][lanes=1][control=Stop Sign] \*\*\*\*\*

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=213]

SUCCEED - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=845]

SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

## SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

## Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\* Intersection #5 Gutierrez St and Olive St \*\*\*\*\*

\*\*\*\*\* Base Volume Alternative: Peak Hour Warrant NOT Met \*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	29 22 0	0 97 116	0 0 0 0	14 547 20
Major Street Volume:		581		

\*\*\*\*\* Minor Approach Volume: 213 \*\*\*\*\*

Minor Approach Volume Threshold: 472

## SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Existing AM Tue Feb 12, 2008 15:19:14 Page 3-3

-----

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

-----

Peak Hour Delay Signal Warrant Report

-----

Intersection #5 Gutierrez St and Olive St

Future Volume Alternative: Peak Hour Warrant NOT Met

-----

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 1 0

Lanes: 29 22 0 0 0 97 116 0 0 0 0 0 14 547 20

ApproachDel: 14.8 15.5 xxxxxx xxxxxx

-----

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

FAIL - Approach volume less than 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=845]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=213]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=845]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Existing AM Tue Feb 12, 2008 15:19:14 Page 3-4

-----

Existing AM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

-----

Peak Hour Volume Signal Warrant Report [Urban]

-----

Intersection #5 Gutierrez St and Olive St

Future Volume Alternative: Peak Hour Warrant NOT Met

-----

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 1 0

Lanes: 29 22 0 0 0 97 116 0 0 0 0 0 14 547 20

Major Street Volume: 581

Minor Approach Volume: 213

Minor Approach Volume Threshold: 472

-----

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Existing PM Tue Feb 12, 2008 15:20:17 Page 1-1  
-----  
Existing PM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy  
-----  
Scenario: Existing PM  
Command: Existing PM  
Volume: Existing PM  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

Existing PM Tue Feb 12, 2008 15:20:17 Page 2-1  
-----  
Existing PM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy  
-----  
Signal Warrant Summary Report  
Base Met  
[Del / Vol]  
No / No

Intersection  
# 5 Gutierrez St and Olive St  
Future Met  
[Del / Vol]  
No / No

Existing PM Tue Feb 12, 2008 15:20:17 Page 3-1

Existing PM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Base Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 84 27 0 0 67 172 0 0 0 0 12 689 42  
ApproachDel: 20.0 17.0 xxxxxx  
\*\*\*\*\*  
Approach[northbound][lanes=1][control=Stop Sign]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #1: [vehicle-hours=0, 6]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1093]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
\*\*\*\*\*  
Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1, 1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=239]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1093]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
\*\*\*\*\*  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).  
The peak hour warrant analysis in this report is not intended to replace  
a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Existing PM Tue Feb 12, 2008 15:20:17 Page 3-2

Existing PM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Base Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 84 27 0 0 67 172 0 0 0 0 12 689 42  
Major Street Volume: 743  
Minor Approach Volume: 239  
Minor Approach Volume Threshold: 387  
\*\*\*\*\*  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).  
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jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Existing PM Tue Feb 12, 2008 15:20:17 Page 3-3

Existing PM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

Peak Hour Delay Signal Warrant Report

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Future Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	84	27	0	67
ApproachDel:	20.0	17.0	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #1: [vehicle-hours=0,6]  
Signal Warrant Rule #2: [approach volume=111]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1093]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1,1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=239]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1093]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Existing PM Tue Feb 12, 2008 15:20:17 Page 3-4

Existing PM Peak Hour  
City of Santa Barbara  
Montecito Condos Restudy

Peak Hour Volume Signal Warrant Report [Urban]

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Future Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	84	27	0	67
ApproachDel:	20.0	17.0	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #1: [vehicle-hours=0,6]  
Signal Warrant Rule #2: [approach volume=111]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1093]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1,1]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=239]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1093]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

Scenario:	Existing With Project AM	Scenario Report
Command:	Existing With Project AM	
Volume:	Existing With Project AM	
Geometry:	Default Geometry	
Impact Fee:	Default Impact Fee	
Trip Generation:	Default Trip Generation	
Trip Distribution:	Default Trip Distribution	
Paths:	Default Path	
Routes:	Default Route	
Configuration:	Default Configuration	

Intersection	Signal Warrant Summary Report			
	Base Met		Future Met	
	[Del / Vol]	No / No	[Del / Vol]	No / No
# 5 Gutierrez St and Olive St				



Existing With Project AM Tue Feb 12, 2008 15:20:31 Page 3-1

-----

\*\*\*\*\*  
Peak Hour Delay Signal Warrant Report  
\*\*\*\*\*

Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 33 24 0 0 98 116 0 0 0 0 0 14 555 20  
ApproachDel: 15.1 15.7 xxxxxx xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.9]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=214]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=960]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.9]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=214]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=960]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

-----

SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

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\*\*\*\*\*  
Peak Hour Volume Signal Warrant Report [Urban]  
\*\*\*\*\*

Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 33 24 0 0 98 116 0 0 0 0 0 14 555 20  
Major Street Volume: 589  
Minor Approach Volume: 214  
Minor Approach Volume Threshold: 467

SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).

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the scope of this software, may yield different results.

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-----

Peak Hour Delay Signal Warrant Report

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Intersection #5 Gutierrez St and Olive St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 1 0 1 0

Initial Vol: 33 24 0 0 98 116 0 0 0 0 0 14 555 20

ApproachDel: 15.1 15.7 xxxxxx xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=214]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=960]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.9]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=214]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=960]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-----

Peak Hour Volume Signal Warrant Report [Urban]

-----

Intersection #5 Gutierrez St and Olive St

Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 1 0

Initial Vol: 33 24 0 0 98 116 0 0 0 0 14 555 20

Major Street Volume: 589

Minor Approach Volume: 214

Minor Approach Volume Threshold: 467

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace a rigorous and complete traffic signal warrant analysis by the responsible jurisdiction. Consideration of the other signal warrants, which is beyond the scope of this software, may yield different results.

Scenario: Existing With Project PM  
Command: Existing With Project PM  
Volume: Existing With Project PM  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

Intersection: Signal Warrant Summary Report  
# 5 Gutierrez St and Olive St  
Base Met [Del / Vol] No / No  
Future Met [Del / Vol] No / No

Existing With Project PM Tue Feb 12, 2008 15:20:44 Page 3-1

Peak Hour Delay Signal Warrant Report

Intersection #5 Gutierrez St and Olive St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0

Initial Vol: 86 28 0 0 73 172 0 0 0 0 12 672 42

ApproachDel: 20.1 17.2

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=0.6]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=114]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1085]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=245]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1085]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Peak Hour Volume Signal Warrant Report (Urban)

Intersection #5 Gutierrez St and Olive St

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0

Initial Vol: 86 28 0 0 73 172 0 0 0 0 12 672 42

Major Street Volume: 726

Minor Approach Volume: 245

Minor Approach Volume Threshold: 395

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing With Project PM Tue Feb 12, 2008 15:20:44 Page 3-3

-----

Peak Hour Delay Signal Warrant Report

-----

Intersection #5 Gutierrez St and Olive St

Future Volume Alternative: Peak Hour Warrant NOT Met

-----

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0 1 0 1 0

Initial Vol: 86 28 0 0 73 172 0 0 0 0 0 12 672 42

ApproachDel: 20.1 17.2 xxxxxx xxxxxx

-----

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=245]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1085]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=245]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1085]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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Existing With Project PM Tue Feb 12, 2008 15:20:44 Page 3-4

-----

Peak Hour Volume Signal Warrant Report (Urban)

-----

Intersection #5 Gutierrez St and Olive St

Future Volume Alternative: Peak Hour Warrant NOT Met

-----

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0 1 0

Initial Vol: 86 28 0 0 73 172 0 0 0 0 0 12 672 42

Major Street Volume: 726

Minor Approach Volume: 245

Minor Approach Volume Threshold: 395

-----

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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## Scenario Report

```

Command:
Volume:      Future Base 2M
Geometry:    Default geometry
Impact Fee:  Default impact fee
Trip Generation: Default trip Generation
Trip Distribution: Default trip Distribution
Paths:       Default Path
Routes:      Default Route
Configuration: Default Configuration

```

# Signal Warrant Summary Report

#	5 Gutierrez St and Olive St	No	/	No
		No	/	No

Future Base AM Tue Feb 12, 2008 15:20:58 Page 3-1

-----

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Peak Hour Delay Signal Warrant Report

-----

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	29 22 0 0 0	98 118 0 0 0	0 0 0	14 555 20
ApproachDel:	15.0	15.7	xxxxx	xxxxx

-----

Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.9]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=216]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=856]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.9]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=216]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=856]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

SIGNAL WARRANT DISCLAIMER

This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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-----

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Peak Hour Volume Signal Warrant Report [Urban]

-----

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	29 22 0 0 0	98 118 0 0 0	0 0 0	14 555 20
Major Street Volume:	589	216		
Minor Approach Volume:	467			
Minor Approach Volume Threshold:	467			

-----

SIGNAL WARRANT DISCLAIMER

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Future Base AM Tue Feb 12, 2008 15:20:58 Page 3-3

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Peak Hour Delay Signal Warrant Report  
\*\*\*\*\*  
Future Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 29 22 0 0 98 118 0 0 0 0 14 555 20  
ApproachDel: 15.0 15.7 xxxxxx  
\*\*\*\*\*  
Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=51]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=856]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
\*\*\*\*\*  
Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.9]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=216]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=856]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
\*\*\*\*\*  
SIGNAL WARRANT DISCLAIMER  
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"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).  
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jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

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\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Peak Hour Volume Signal Warrant Report (Urban)  
\*\*\*\*\*  
Future Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 29 22 0 0 98 118 0 0 0 0 14 555 20  
Major Street Volume: 589  
Minor Approach Volume: 216  
Minor Approach Volume Threshold: 467  
\*\*\*\*\*  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).  
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jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.



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Scenario Report

Future Base PM

Future Base PM

Future Base PM

Future Base PM

Default Geometry

Default Impact Fee

Default Trip Generation

Default Trip Distribution

Default Path

Default Route

Default Configuration

Configuration:

Future Base PM Tue Feb 12, 2008 15:21:11 Page 2-1

-----

Signal Warrant Summary Report

Base Met

(Del / Vol)

No / No

Future Met

(Del / Vol)

No / No

Intersection

# 5 Gutierrez St and Olive St

Future Base PM Tue Feb 12, 2008 15:21:11 Page 3-1

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	85 27 0 0 68 175	0 0 0 0 0	0 0 0 0 0	12 699 43
ApproachDel:	20.5	17.4	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.6]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=112]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1109]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=243]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1109]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER  
This peak hour warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	85 27 0 0 68 175	0 0 0 0 0	0 0 0 0 0	12 699 43
ApproachDel:	20.5	17.4	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.6]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=112]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1109]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=243]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1109]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER  
This peak hour warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Future Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 85 27 0 0 68 175 0 0 0 0 12 699 43  
ApproachDel: 20.5 17.4 xxxxxx  
\*\*\*\*\*  
Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=243]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1109]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
\*\*\*\*\*  
Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=243]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1109]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
\*\*\*\*\*  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).  
The peak hour warrant analysis in this report is not intended to replace  
a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Future Base PM Tue Feb 12, 2008 15:21:11 Page 3-4

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*  
Future Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 85 27 0 0 68 175 0 0 0 0 12 699 43  
Major Street Volume: 754  
Minor Approach Volume: 243  
Minor Approach Volume Threshold: 362  
\*\*\*\*\*  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).  
The peak hour warrant analysis in this report is not intended to replace  
a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

```
Scenario: Scenario Report
Future With Project AM
Future With Project AM
Future With Project AM
Command:
Volume:
Geometry:
Impact Fee:
Trip Generation:
Trip Distribution:
Paths:
Routes:
Configuration:
```

Signal Warrant Summary Report			
Intersection	Base Met		Future Met
	[Del / Vol]	No / No	[Del / Vol] No / No
# 5 Gutierrez St and Olive St			

Future With Project AM Tue Feb 12, 2008 15:21:23 Page 3-1

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
Base Volume Alternative: Peak Hour Warrant NOT Met  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0  
Initial Vol: 33 24 0 0 99 118 0 0 0 0 14 563 20  
ApproachDel: 15.3 15.9 xxxxxx  
Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=57]  
FAIL - Approach volume less than 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=671]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.0]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=217]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=871]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace  
a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Future With Project AM Tue Feb 12, 2008 15:21:24 Page 3-2

\*\*\*\*\*  
Intersection #5 Gutierrez St and Olive St  
Base Volume Alternative: Peak Hour Warrant NOT Met  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0  
Initial Vol: 33 24 0 0 99 118 0 0 0 0 14 563 20  
Major Street Volume: 597  
Minor Approach Volume: 217  
Minor Approach Volume Threshold: 463  
SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).

The peak hour warrant analysis in this report is not intended to replace  
a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Future With Project AM Tue Feb 12, 2008 15:21:24 Page 3-3

\*\*\*\*\*  
Peak Hour Delay Signal Warrant Report  
\*\*\*\*\*

Intersection #5 Gutierrez St and Olive St  
Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 33 24 0 0 99 118 0 0 0 0 14 563 20  
ApproachDel: 15.3 15.9 xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.0]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=217]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=871]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.0]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=217]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=871]  
SUCCEED - Total volume greater than or equal to 650 for intersection  
with less than four approaches.

SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Future With Project AM Tue Feb 12, 2008 15:21:24 Page 3-4

\*\*\*\*\*  
Peak Hour Volume Signal Warrant Report [Urban]  
\*\*\*\*\*

Intersection #5 Gutierrez St and Olive St  
Future Volume Alternative: Peak Hour Warrant NOT Met

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Lanes: 0 1 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0 1 0  
Initial Vol: 33 24 0 0 99 118 0 0 0 0 14 563 20  
Major Street Volume: 597  
Minor Approach Volume: 217  
Minor Approach Volume Threshold: 463

SIGNAL WARRANT DISCLAIMER  
This peak hour signal warrant analysis should be considered solely as an  
"indicator" of the likelihood of an unsignalized intersection warranting  
a traffic signal in the future. Intersections that exceed this warrant  
are probably more likely to meet one or more of the other volume based  
signal warrant (such as the 4-hour or 8-hour warrants).

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a rigorous and complete traffic signal warrant analysis by the responsible  
jurisdiction. Consideration of the other signal warrants, which is beyond  
the scope of this software, may yield different results.

Scenario: Future With Project PM  
Command: Future With Project PM  
Volume: Future With Project PM  
Geometry: Default Geometry  
Impact Fee: Default Impact Fee  
Trip Generation: Default Trip Generation  
Trip Distribution: Default Trip Distribution  
Paths: Default Path  
Routes: Default Route  
Configuration: Default Configuration

Signal Warrant Summary Report  
Intersection: Base Met  
# 5 Gutierrez St and Olive St (Del / Vol)  
Future Met  
No / No

Future With Project PM Tue Feb 12, 2008 15:21:38 Page 3-1

\*\*\*\*\*  
Peak Hour Delay Signal Warrant Report  
\*\*\*\*\*

Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	87 28	0 0 74 175	0 0 0 0	12 702 43
ApproachDel:	21.2	16.0	xxxxxx	xxxxxx

Approach[northbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=0.7]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=115]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1121]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

Approach[southbound][lanes=1][control=Stop Sign]  
Signal Warrant Rule #1: [vehicle-hours=1.2]  
FAIL - Vehicle-hours less than 4 for one lane approach.  
Signal Warrant Rule #2: [approach volume=249]  
SUCCEED - Approach volume greater than or equal to 100 for one lane approach.  
Signal Warrant Rule #3: [approach count=3][total volume=1121]  
SUCCEED - Total volume greater than or equal to 650 for intersection with less than four approaches.

SIGNAL WARRANT DISCLAIMER  
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\*\*\*\*\*  
Peak Hour Volume Signal Warrant Report [Urban]  
\*\*\*\*\*

Intersection #5 Gutierrez St and Olive St  
\*\*\*\*\*

Base Volume Alternative: Peak Hour Warrant NOT Met  
\*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Lanes:	0 1 0 0 0	0 0 0 1 0	0 0 0 0 0	0 1 0 1 0
Initial Vol:	87 28	0 0 74 175	0 0 0 0	12 702 43
Major Street Volume:	757			
Minor Approach Volume:	249			
Minor Approach Volume Threshold:	361			

SIGNAL WARRANT DISCLAIMER  
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Peak Hour Delay Signal Warrant Report

-----

Intersection #5 Gutierrez St and Olive St

-----

Future Volume Alternative: Peak Hour Warrant NOT Met

-----

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0 0

Initial Vol: 87 28 0 0 0 74 175 0 0 0 0 12 702 43

ApproachDel: 21.2 18.0 xxxxx

-----

Approach[northbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=249]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1121]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

Approach[southbound][lanes=1][control=Stop Sign]

Signal Warrant Rule #1: [vehicle-hours=1.2]

FAIL - Vehicle-hours less than 4 for one lane approach.

Signal Warrant Rule #2: [approach volume=249]

SUCCESS - Approach volume greater than or equal to 100 for one lane approach.

Signal Warrant Rule #3: [approach count=3][total volume=1121]

SUCCESS - Total volume greater than or equal to 650 for intersection with less than four approaches.

-----

SIGNAL WARRANT DISCLAIMER

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-----

Peak Hour Volume Signal Warrant Report [Urban]

-----

Intersection #5 Gutierrez St and Olive St

-----

Future Volume Alternative: Peak Hour Warrant NOT Met

-----

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Lanes: 0 1 0 0 0 0 0 1 0 0 0 0 0 0 1 0

Initial Vol: 87 28 0 0 0 74 175 0 0 0 0 12 702 43

Major Street Volume: 757

Minor Approach Volume: 249

Minor Approach Volume Threshold: 381

-----

SIGNAL WARRANT DISCLAIMER

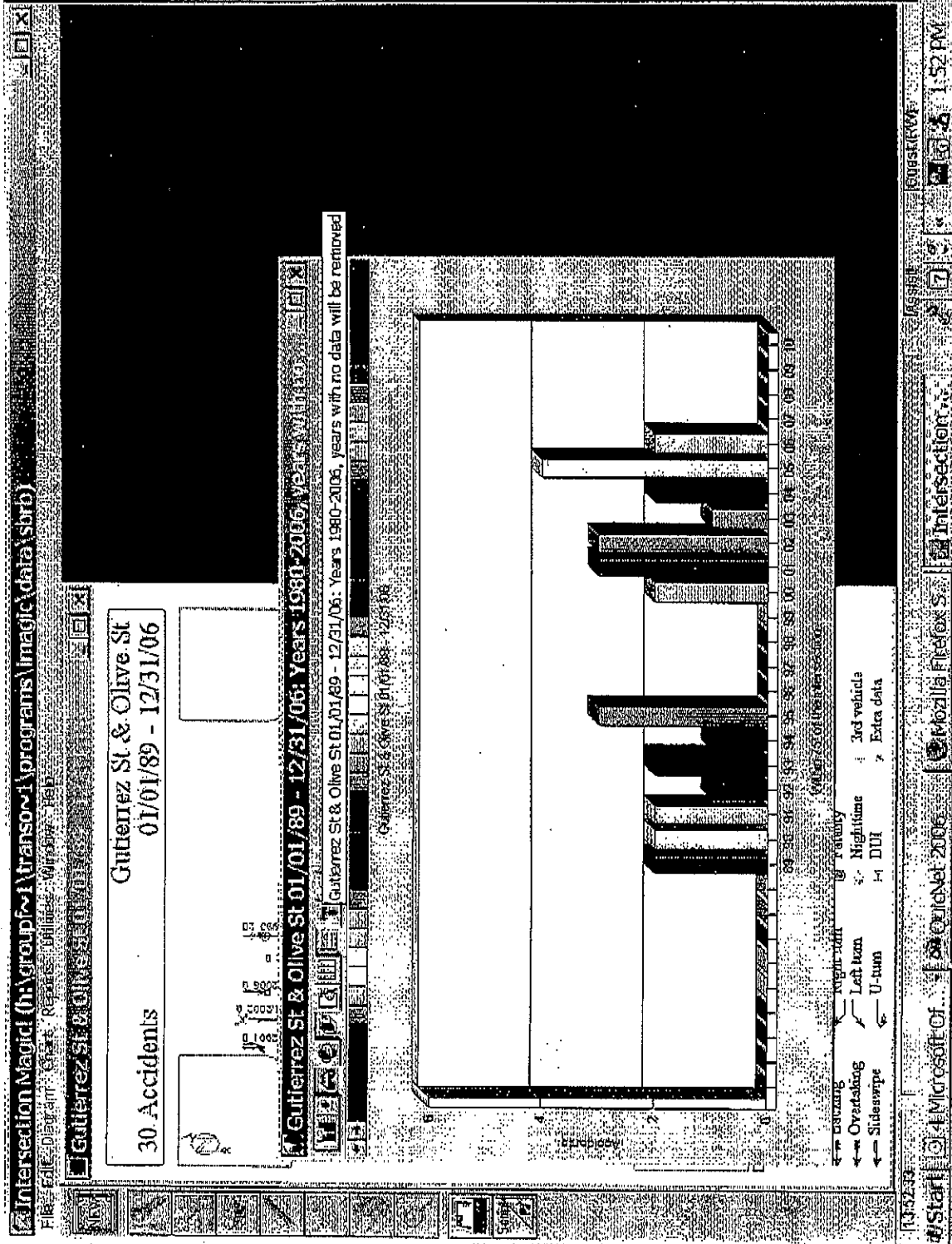
This peak hour signal warrant analysis should be considered solely as an "indicator" of the likelihood of an unsignalized intersection warranting a traffic signal in the future. Intersections that exceed this warrant are probably more likely to meet one or more of the other volume based signal warrant (such as the 4-hour or 8-hour warrants).

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# **APPENDIX E**

## **COLLISION DATA**

For 535 C. Montelito  
EIR

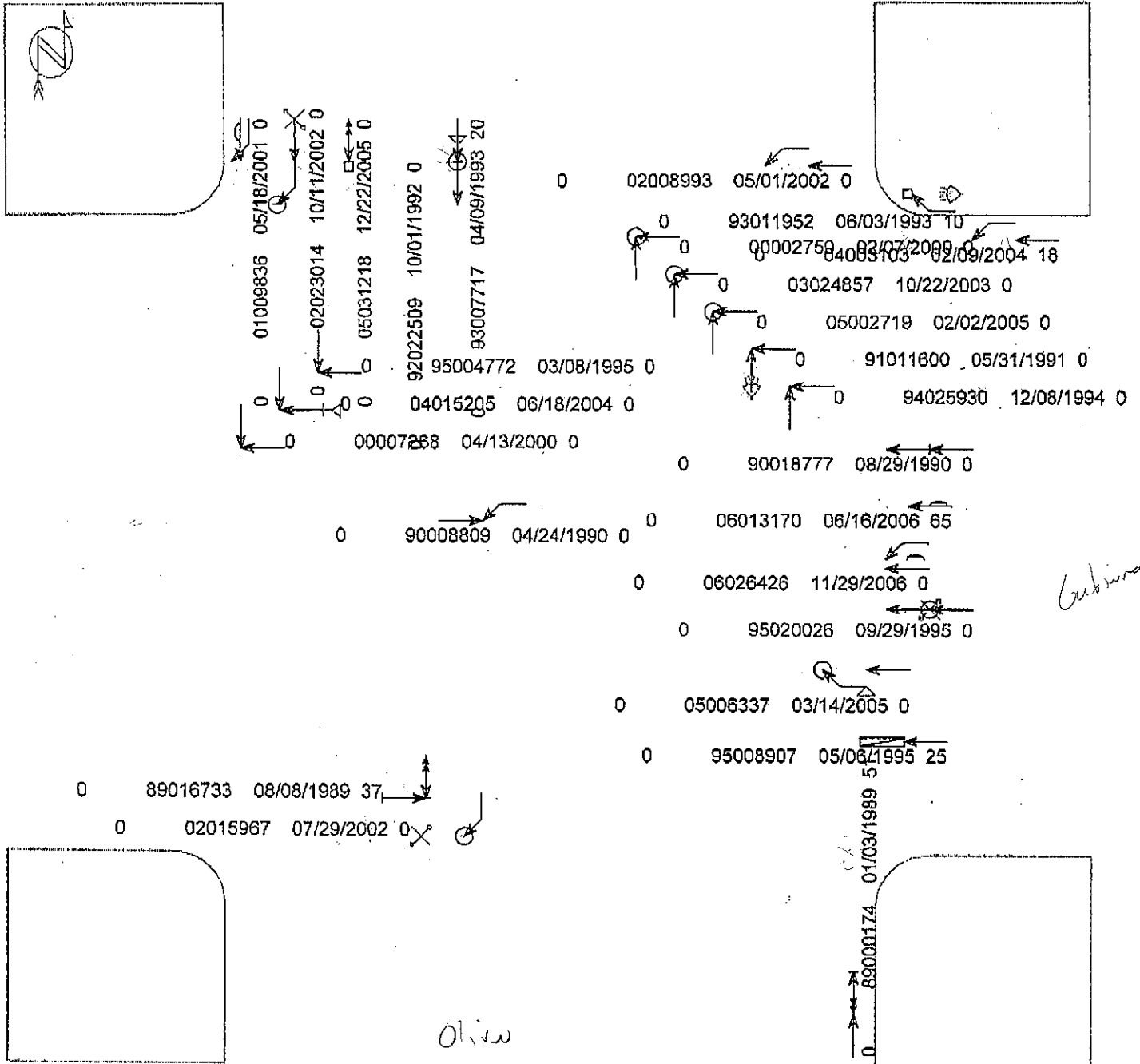


For 535 E. Montecito EIR

# Gutierrez St & Olive St

## 01/01/89 - 12/31/06

### 30 Accidents



Within 75' of the intersection, (4) accidents with insufficient data for display

← Straight	▬ Parked	× Pedestrian	Fixed objects:	
⊥ Stopped	↪ Erratic	⊗ Bicycle	□ General	□ Pole
↔ Unknown	↪ Out of control	○ Injury	▣ Signal	▣ Curb
↔ Backing	↪ Right turn	◎ Fatality	▣ Tree	⌘ Animal
↔ Overtaking	↪ Left turn	⌘ Nighttime	◁ 3rd vehicle	
↔ Sideswipe	↪ U-turn	⌘ DUI	* Extra data	

## **APPENDIX F**

# **ON-STREET PARKING SURVEY COUNTS**

Wednesday  
12/18/2007

Parking Utilization  
City of Santa Barbara

**Olive St Bt. Haley & Montecito**

<u>TIME</u>	<i>East Side</i>	<i>West Side</i>
8:00	18	22
9:00	23	28
10:00	25	33
11:00	26	35
12:00	21	39
1:00	21	34
2:00	22	37
3:00	25	39
4:00	20	40
5:00	18	24
6:00	12	13
7:00	13	13
8:00	11	10

**Salsipuedes/N. Calle Cesar Chavez  
Bt. Haley & 101 Overpass**

<u>TIME</u>	<i>East Side</i>	<i>West Side</i>
8:00	38	33
9:00	48	45
10:00	56	46
11:00	57	49
12:00	52	46
1:00	53	41
2:00	53	45
3:00	58	46
4:00	61	44
5:00	43	28
6:00	31	20
7:00	19	19
8:00	13	15

**Quarantina St  
Bt. Haley & Montecito**

<u>TIME</u>	<i>East Side</i>	<i>West Side</i>
8:00	24	19
9:00	24	28
10:00	29	31
11:00	32	35
12:00	23	33
1:00	24	30
2:00	23	30
3:00	24	28
4:00	22	32
5:00	16	18
6:00	11	8
7:00	6	7
8:00	6	6

**Haley St  
Bt. Olive & Quarantina**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	6	4
9:00	11	9
10:00	11	12
11:00	14	16
12:00	17	15
1:00	11	12
2:00	15	10
3:00	12	10
4:00	13	20
5:00	9	13
6:00	6	6
7:00	4	6
8:00	3	4

Wednesday  
12/18/2007

Parking Utilization  
City of Santa Barbara

**Richardson Ave**  
**Bt. Olive & Salsipuedes/Cesar Chavez**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	27	16
9:00	29	15
10:00	30	18
11:00	33	23
12:00	33	16
1:00	28	17
2:00	30	17
3:00	32	18
4:00	29	17
5:00	25	12
6:00	20	6
7:00	18	5
8:00	16	3

**Gutierrez St.**  
**Bt. Olive & Quarantina**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	5	15
9:00	12	20
10:00	13	26
11:00	16	28
12:00	13	26
1:00	12	25
2:00	13	23
3:00	13	22
4:00	11	21
5:00	16	25
6:00	11	16
7:00	9	11
8:00	7	7

**Montecito St**  
**Bt. Olive & Quarantina**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	20	24
9:00	20	27
10:00	31	24
11:00	34	28
12:00	27	23
1:00	27	22
2:00	25	21
3:00	24	20
4:00	27	21
5:00	25	17
6:00	24	18
7:00	22	20
8:00	17	16

Thursday  
12/19/2007

Parking Utilization  
City of Santa Barbara

**Olive St Bt. Haley & Montecito**

<u>TIME</u>	<i>East Side</i>	<i>West Side</i>
8:00	18	25
9:00	20	33
10:00	23	35
11:00	25	40
12:00	28	43
1:00	24	35
2:00	22	34
3:00	26	36
4:00	24	39
5:00	21	30
6:00	13	20
7:00	14	15
8:00	9	14

**Salsipuedes/N. Calle Cesar Chavez  
Bt. Haley & 101 Overpass**

<u>TIME</u>	<i>East Side</i>	<i>West Side</i>
8:00	49	30
9:00	57	40
10:00	58	42
11:00	58	50
12:00	60	54
1:00	58	48
2:00	55	45
3:00	56	44
4:00	56	48
5:00	41	30
6:00	29	22
7:00	20	18
8:00	16	14

**Quarantina St  
Bt. Haley & Montecito**

<u>TIME</u>	<i>East Side</i>	<i>West Side</i>
8:00	29	28
9:00	26	30
10:00	27	34
11:00	27	33
12:00	29	33
1:00	27	32
2:00	26	31
3:00	24	29
4:00	20	30
5:00	13	16
6:00	9	9
7:00	7	6
8:00	6	4

**Haley St  
Bt. Olive & Quarantina**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	13	9
9:00	15	11
10:00	17	14
11:00	15	13
12:00	16	15
1:00	14	16
2:00	14	13
3:00	13	11
4:00	11	19
5:00	9	14
6:00	4	6
7:00	4	4
8:00	3	5



Thursday  
12/19/2007

Parking Utilization  
City of Santa Barbara

**Richardson Ave**  
**Bt. Olive & Salsipuedes/Cesar Chavez**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	27	18
9:00	33	19
10:00	37	21
11:00	32	19
12:00	31	22
1:00	33	20
2:00	32	21
3:00	34	23
4:00	31	20
5:00	27	18
6:00	25	14
7:00	21	11
8:00	14	6

**Gutierrez St.**  
**Bt. Olive & Quarantina**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	7	21
9:00	11	25
10:00	13	29
11:00	11	25
12:00	13	26
1:00	12	23
2:00	13	22
3:00	12	22
4:00	12	23
5:00	11	23
6:00	11	15
7:00	10	10
8:00	8	7

**Montecito St**  
**Bt. Olive & Quarantina**

<u>TIME</u>	<i>North Side</i>	<i>South Side</i>
8:00	25	19
9:00	22	19
10:00	26	23
11:00	30	24
12:00	31	27
1:00	23	24
2:00	24	23
3:00	22	21
4:00	23	22
5:00	23	20
6:00	21	19
7:00	22	19
8:00	15	15

## **APPENDIX G**

### **PRELIMINARY PROJECT GRADING PHASE**

## City of Santa Barbara

Requested Submittal

### PRELIMINARY PROJECT GRADING PHASE

December 13, 2007

**Project Name:** Los Portales  
535 E. Montecito Street  
Santa Barbara, CA.

**Owner:** Housing Authority of the City of Santa Barbara  
808 Laguna Street.  
Santa Barbara, CA. 93101

**Applicant:** Bermant Development Company, Inc.  
5383 Hollister Av. Suite 150  
Goleta, CA 93117

**Project Architect:** Peikert Group Architects, LLP  
10 E. Figueroa Street, Suite 1  
Santa Barbara, CA. 93101

**Purpose:** This outline is intended to provide an approximate description, quantity and operation hours of equipment that would generally be used to complete a project of this type.

#### **Site Clearing and Grubbing Phase.**

- **Duration:** Site clearing and demolition will require approximately two (2) days.
- **Equipment & total hours of use:**
  - (1) Track dozer time: 2 days.
  - (1) Rubber tire loader time: 24 hours.
  - (2) End-dump trucks time: 16 hours total. (8 truck loads total)
  - (1) Water truck time: 16 hours.
  - Various small engine hand operated tools: 10 hours.
- **Workers:** This phase will require approx. five (5) workers including equipment operators, ground laborers and dust and traffic control personnel.
- **Export:** The estimated clearing and grubbing export is 120 cubic yards of material. Export hauling hours are estimated at eight (8) truck load round trips.

#### **Site Excavation and Grading Phase.**

- **Duration:** Site grading operations including soil import and pad elevation preparation, approx. four (4) weeks.
- **Equipment & total hours of use:**
  - (1) Rubber tire loader time: 80 hours.
  - (2) Track dozers time: 300 hours
  - (1) Grader time: 40 hours

(3) End-dump trucks time: 190 total hours. (Estimated 1,800 cubic yards import, approx 90 trips total)

(1) Sheep-foot type compactor time: 100 hours.

(1) Water truck time: 80 hours.

Small motor driven portable compactors and hand tools.

- **Workers:** This phase will require approx. six (6) workers including equipment operators and ground laborers.
- **Soil Import:** The Civil Engineer's estimated project soil import is 1,800 cubic yards. Import hauling equipment hours are included above. Civil Engineer's estimated cut is 260 cubic yards. This material will be stockpiled on site and added to the 1,800 cubic yards imported to accomplish the total estimated 2,060 cubic yards of fill.

**Contractor Notes:** Actual project scheduling may involve sharing of various equipment types between clearing, excavation and finish grading phases combining use and streamlining project equipment mobilizations.